15¢

The OIL WEEKLY

OIL and GAS ENGINEERING

FOR OIL AND GAS PRODUCERS AND PIPE LINE MEN

THE WEEK'S NEWS INTERPRETED

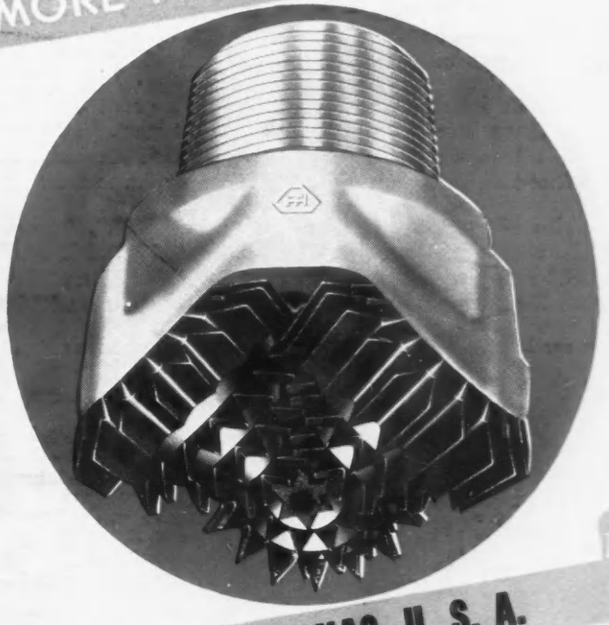
AUG 3 1936

When the "Champion" golfer tees-off, the gallery—even his opponent—has a right to expect old man Par to take a licking—and it generally does.

NATURALLY—YOU EXPECT MORE FROM A LEADER

The leadership of Hughes Rock Bits has been established thru the successful drilling of countless thousands of feet of hole under varying and difficult conditions.

When you are running a Hughes Rock Bit—you expect "Old Man Par" to take a licking—with reference to lower drilling costs and more hole per tour—you will seldom be disappointed.



HUGHES TOOL COMPANY, HOUSTON, TEXAS, U. S. A.

VOLUME 82 AUGUST 10, 1936 NUMBER 9

In MEXICO,
"Treasure-House of the World"

UNION WIRE LINES
ARE "IN THE MONEY"

It is not strange that Mexico has been called "treasure-house of the world!"

For after exporting billions of dollars worth of precious metals and petroleum—Mexico's vast reserves of mineral resources have scarcely been touched. Her oil lands alone comprise four million acres.

It is in the development of Mexico's great petroleum industry that UNION Wire Lines have played an important part. In Mexico, as well as in every other oil section of North America, UNION Lines owe their leadership to the fact that they are designed by *oil* men to meet *oil* field conditions.

The photograph shows "Delgado No. 2", in the Altamira District. This well, which is owned by Harry Curtis and M. M. McCormick, came in at 12,000 barrels. The men, left to right, are Harry Curtis; E. O. Chapa, Union Wire Rope Corp. Representative for Mexico; and M. M. McCormick.

See our Exhibit at the Texas Centennial Central Exposition, Section 'B', Spaces Nos. 1 and 2.

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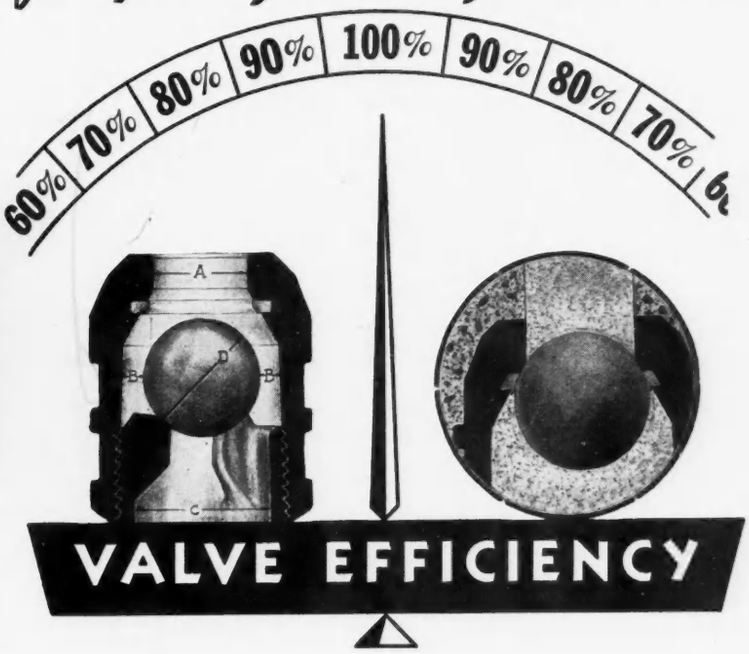
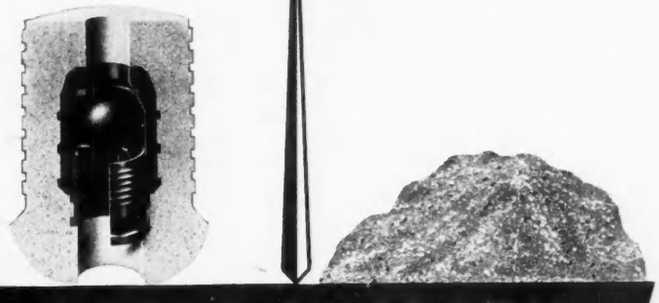
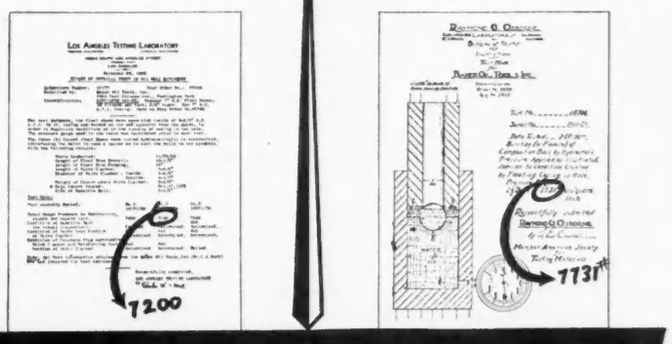
for Guiding, Floating and Cementing STRINGS OF CASING



VALVE EFFICIENCY



DRILLABILITY



STRENGTH

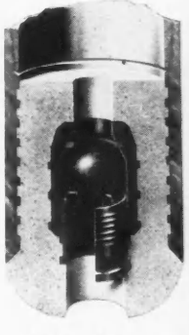
ONLY when you carefully weigh all vital requirements of cementing equipment do you realize what the "Three-Point-Balance" of Baker Cement Equipment means to you.

When you consider Valve Efficiency notice how a sufficiently large circulation area is provided, but note, also, that the "wash-down" action is retained — *perfect balance* is maintained. Then observe how the buoyant Bakelite ball floats in cement slurry, but instantly double-seals against rubber backed by Bakelite at the first reversal of pressure—either high or low. *Perfect balance* is maintained.

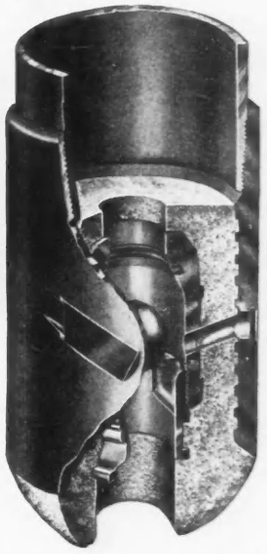
Consider next the Drillability of Baker Cement Equipment, and how *no metal ever is used*. The illustration (extreme left) pictures a half-section of the guide and plug made of Baker Formula Concrete and a minimum amount of Bakelite for the Valve—*perfect balance* is maintained. Both of these materials are easily and quickly *drilled out, drilled up* and *circulated out of the hole*. No metal or other fragments are left to prevent *immediate coring* or *safe, straight-hole* drilling. *Perfect balance* is maintained.

And what about Strength? The reports of independent testing laboratories (where the conditions of running-in casing were duplicated) show strength of the Bakelite Ball, the Valve Seat and the Concrete Guide all to exceed 6,000 pounds per square inch. *Perfect balance* is maintained, and you always know that any "floating" unit of Baker Cement Equipment is stronger than the casing upon which it is run. Greater strength is unnecessary; less strength is hazardous —*perfect balance* is maintained.

Look on pages 169 (and following) of the Composite Catalog for complete details, or ask us to send you the large Baker Catalog.



Baker Cement Float Shoe, described on pages 169 to 173 of the 1936 Composite Catalog.



Baker Cement Float Collar — see page 174 of the 1936 Composite Catalog.

Here is the Ultimate in cementing efficiency—the Baker Cement Whirler Float Shoe—with side outlets which direct a portion of the cement upward with a "whirling" motion that insures complete distribution but eliminates danger of channeling.

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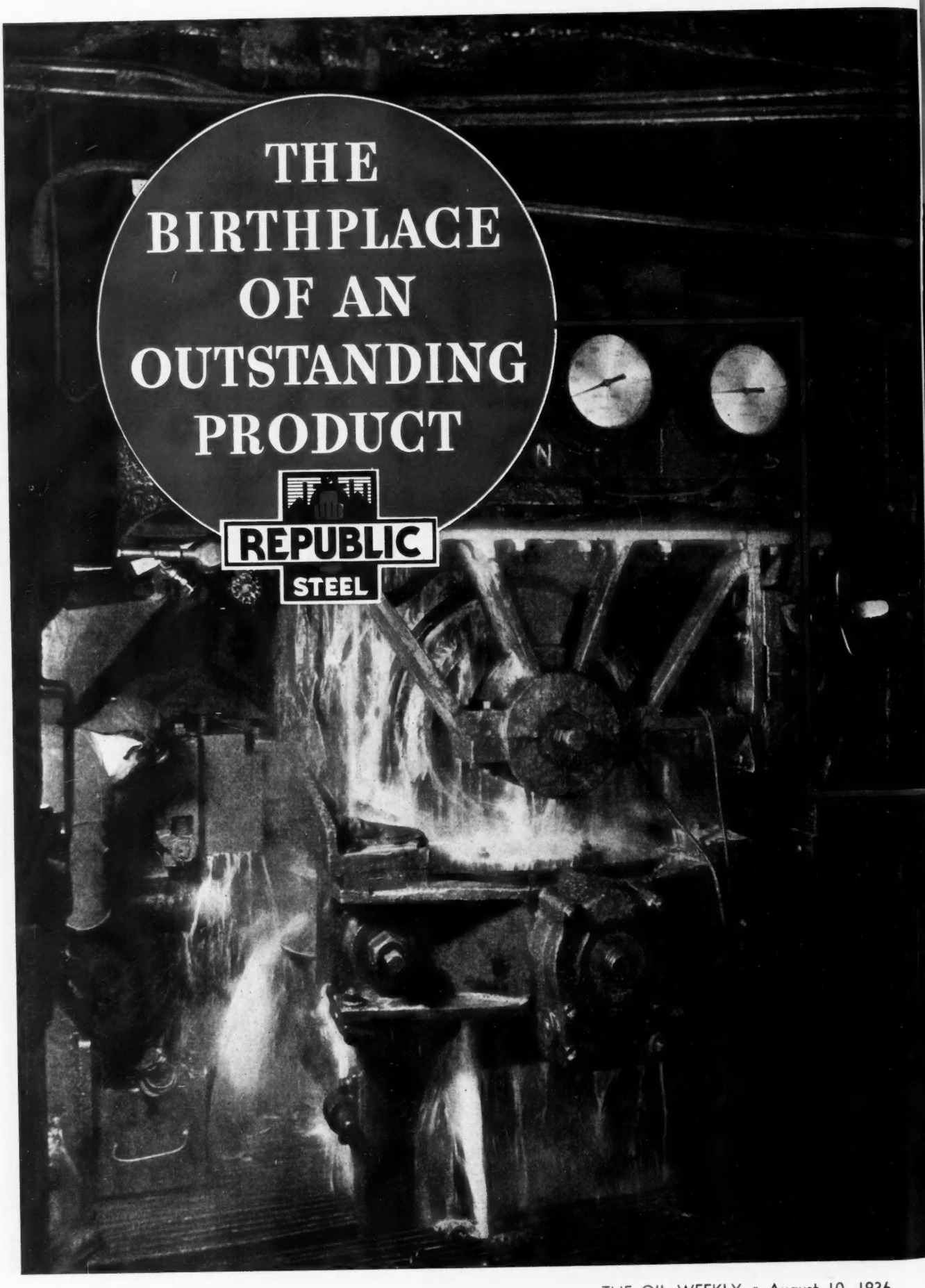
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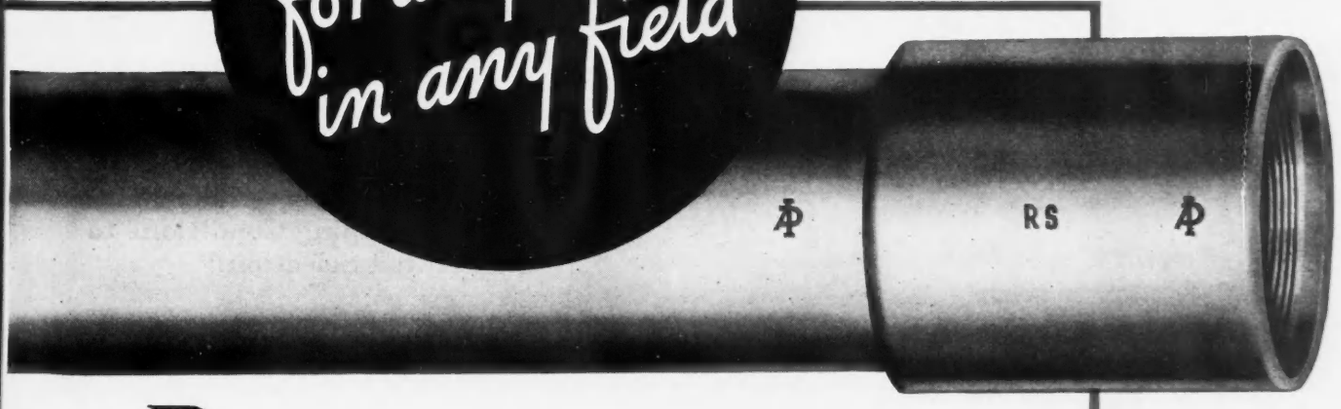

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THE OIL WEEKLY

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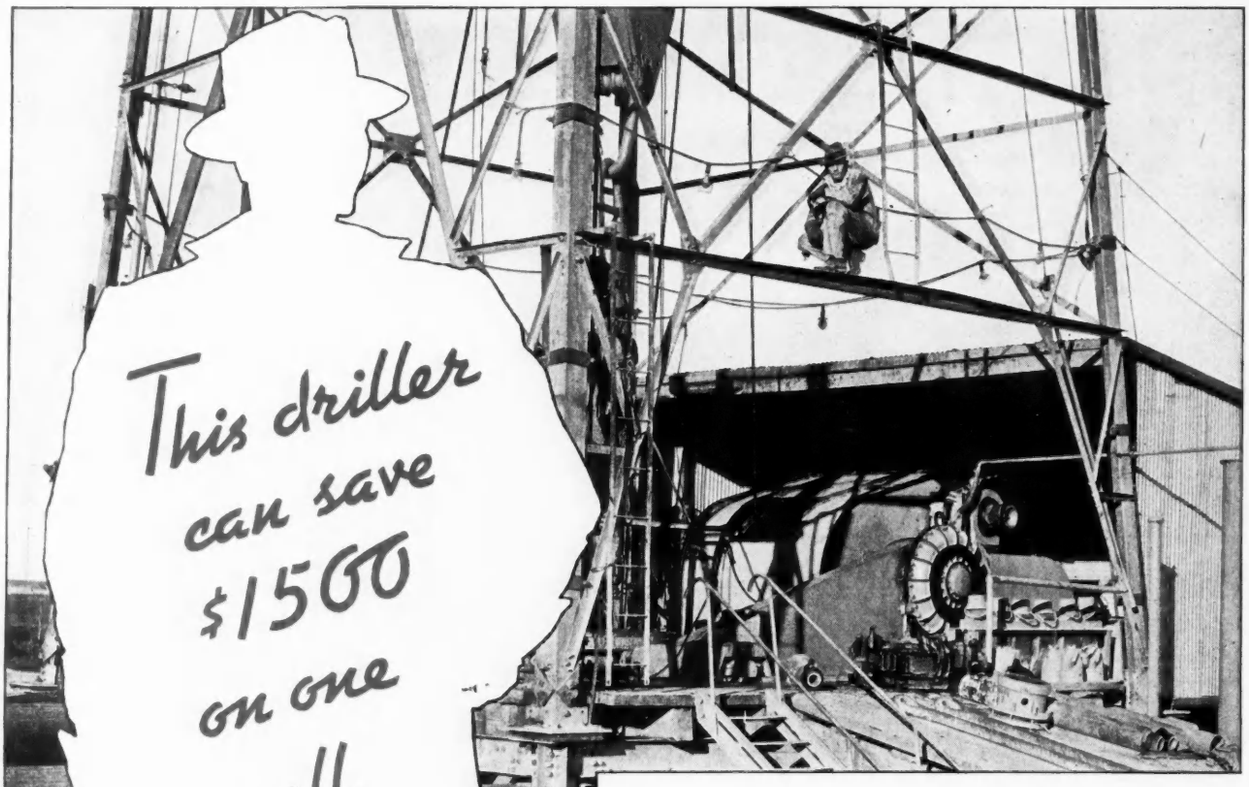

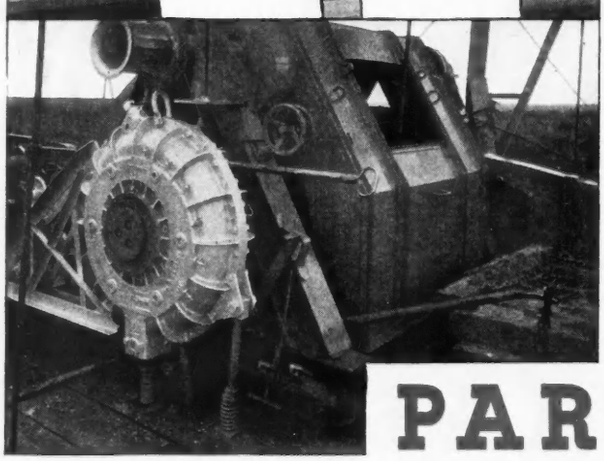

● The driller who can save $1500.00 on one well is not necessarily a "super man." He represents any driller on a deep well that is equipped with the Parkersburg Hydromatic Brake. Statements from operators who have checked its results say that this brake pays for itself in one 10,000′ well.

Typical of its performance is the report from one driller who says: "After running 8,000′ of 6″ drill pipe the brake drums were only slightly warm." It also does away with hazardous working conditions caused by smoking brake drums and eliminates all danger of runaway loads. Operators also like the economy of its operation. There are no moving parts to wear out and it will give years of efficient, trouble free service.

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THE OIL WEEKLY

FOR OIL AND GAS PRODUCERS
AND PIPE LINE MEN

ENGINEERING NEWS STATISTICS

WARREN L. BAKER, Editor

. . . this Week

IN ALMOST every respect, statistics for the industry during July showed an unusually favorable record. Outstanding was strict control of crude production, the nation's output being but 33,322 barrels a day higher than recommendations made by the U. S. Bureau of Mines at the first of the month. Refinery operations were sufficiently restrained. These two factors resulted in a material decline in both crude and gasoline stocks. The latter condition brought about a steady market for crude and its products. **Page 12.**

A FEDERAL grand jury in Madison, Wisconsin, has charged 58 individuals, 23 corporations, and three publications of the oil industry with violating the anti-trust laws. The indictment says these individuals and corporations operated two gasoline buying pools in a way that they became combinations in restraint of trade. The charges are mostly based upon buying in the East Texas field. The effect, the indictment continues, was that jobbers had to pay higher prices for gasoline than would have been the case if the alleged pools were not operating. **Page 10.**

OPERATORS in the Texas sector of the Rodessa field made known at the Texas Railroad Commission's special hearing on the field that they wanted to enjoy the same opportunities for profit as now apply on the Louisiana side of the pool. The commission heard a proposed set of regulations for the district, which were to be dropped if Louisiana conservation officials did not enact a similar program, and then took the case under advisement. There were several disagreeing parties to the plan submitted, the arguments being based mostly upon spacing of wells **Page 11.**

IN HIS first campaign speech in behalf of the reelection of President Roosevelt, Secretary of the Interior Harold L. Ickes assailed the oil record of Governor Alf M. Landon, the opponent of Roosevelt for the presidency. Naturally, his words are of interest to the industry. He charged Landon with having different views today, since he is a political candidate, than a few years ago when the Roosevelt administration was actively interested in federal regulation of the industry. **Page 20.**

THE Cunningham field of Kansas is an ideal example of how operating companies may use to advantage the forces of nature in the development of producing areas. In this field, Skelly Oil Company has a planned program that utilizes the natural advantages. Repressuring work, special treatment of oil, disposal of salt water, removal of gasoline from the gas, disposal of the residue gas, and maintenance of surface equipment feature the company's operations. These are aiding in realizing all the revenue possible from the leases, and will procure efficient operation of the properties over a long period of time. **Page 43.**

FUTURE producible crude oil reserves in the Texas-Louisiana Gulf Coast are estimated to have increased 74,000,000 barrels during the first half of 1936. The Texas sector of the coast found around 79,000,000 barrels more oil than produced. Seven new fields, extensions and new sands in old fields accounted for the growth in reserves. In Louisiana, a loss of 5,000,000 barrels occurred. Only 20,000,000 barrels of new reserves were discovered and production during the period amounted to 25,000,000 barrels. **Page 22.**

A MODERN heavy-duty rotary drilling rig being used in the Gulf Coast is equipped with a number of steam and fuel saving devices. The rotary table is driven by a separate steam engine, thereby permitting the larger draw works engines to remain idle when only drilling operations are being conducted. Steam exhaust from the slush pumps is being returned to a preheater, thereby reducing the amount of fuel needed by the boilers as well as saving on the water required to operate the rig. **Page 27.**

GEL-TYPE clays have been used successfully in rotary drilling for a number of years, but it has been only during recent years that the advantages of these materials to cable tool drilling has been realized. Cable tool drillers today are using these clays with economical success. Usage has shown that more open hole may be carried, and that a larger percentage of the casing strings may be recovered when the hole is conditioned with gel-type clays. **Page 35.**

The Oil Man's Calendar

AUG. 11–16	Michigan Oil and Gas Exposition, Mt. Pleasant, Michigan.
SEPT. 7–12	World Power (Fuel) Conference, Washington, D. C.
7–12	American Chemical Society, Pittsburgh, Pennsylvania.
16–18	National Petroleum Association, Atlantic City, New Jersey.
?	American Petroleum Institute, Division of Production, Mid-Continent District, Probably at Oklahoma City.
OCT. 5– 9	National Safety Congress Petroleum Section, Atlantic City, New Jersey.
?	American Institute of Mining and Metallurgical Engineers, Cleveland, Ohio.
25–30	American Gas Association, Atlantic City, New Jersey.
NOV. 9–12	American Petroleum Institute, 17th Annual Meeting, Chicago, Illinois.
NOV. 30–DEC. 1	Independent Petroleum Association of America, Biltmore Hotel, Oklahoma City, Oklahoma.
NOV. 30–DEC. 4	American Society of Mechanical Engineers, Annual Meeting, Society's Building, New York.

Trust Busting

FEDERAL INDICTMENT ALLEGES 23 COMPANIES RESTRAIN TRADE

WASHINGTON, D. C.

INITIATING one of the most ambitious "trust busting" campaigns since that which resulted in the splitting up of the Standard Oil "trust" a generation ago, the Department of Justice on August 4 announced the return of an indictment by a federal grand jury at Madison, Wisconsin, against 23 oil companies, 3 publications and 58 individuals, charging conspiracy to raise and fix the price of gasoline moving in interstate commerce.

The indictment, secured following months of investigation by department agents, was returned July 28 but was kept secret until the defendants could be served with warrants.

It is expected the case will come up in court early this fall, and under the Sherman law the defendants, if convicted, may be subjected to fine of $5000 or imprisonment for one year, or both.

The charges are that buying pools, one operating in East Texas, the other in Oklahoma and other Mid-Continent areas, resulted in gasoline being bought from independent refiners in spot transactions at artificial prices which were maintained as going market prices. The further charge is that this gasoline was sold on long-time supply contracts to independent jobbers at prices quoted in publications. The effect as outlined in the indictment was that jobbers were required to buy gasoline at quotations higher than would have been quoted had not the buying pools been active in the manufacturing areas.

Previously this special grand jury had returned an indictment of perjury against William A. Tracy, tank car sales manager of Sinclair Refining Company, Fort Worth. He was charged with testifying that he knew nothing of a buying pool in gasoline when in fact he did know.

The jury recessed until August 19, following its work of returning the indictment that involves 84 individuals and concerns.

Scored on the number of individuals involved and the wealth represented in the corporations, the Madison indictment is perhaps the outstanding jury document of court procedure in the United States.

Reciting that the states of Michigan, Wisconsin, Minnesota, North and South Dakota, Iowa, Illinois, Indiana, Missouri and Kansas compose one of the great marketing areas for gasoline in the United States, and that the defendant major oil companies control and manufacture, ship and sell more than 85 percent (approximately 4,500,000,000 gallons) of all gasoline distributed annually in that area, the indictment charges that "for more than a year last past, and continuing to the date of the presentation of this indictment, said defendant major oil companies have uniformly adopted and have embodied in their respective standard forms of jobber contracts employed throughout the Mid-Western area virtually identical provisions governing terms and conditions of sale, in part substantially as follows: The price of gasoline to the jobber shall be the average spot market price, determined by averaging the high and low spot market prices for gasoline of comparable octane rating published by defendant Platt's Oilgram, for the Tulsa, Oklahoma, market, and by defendant Chicago Journal of Commerce on date of shipment. If the average spot market price plus freight to destination shall allow the buyer a margin of less than 5½ cents per gallon below the service station price posted by defendant Standard of Indiana, then the buyer and the seller shall share equally in the deficit below a 5½-cent margin."

Further, the indictment charges: "Beginning in the month of February, 1935, and continuing to the date of the presentation of this indictment, defendants and certain persons hereinafter referred to, and other persons to the grand jurors unknown, well knowing all the foregoing facts, have combined and conspired together for the purpose of artificially raising and fixing the tank car prices of gasoline in the aforementioned spot markets, and, as intended by them, defendants have artificially raised and fixed said spot market tank car prices of gasoline and have maintained said prices at artificially high and non-competitive levels, and at levels agreed upon among them, or some of them, and have thereby intentionally increased and fixed the tank car prices of gasoline contracted to be sold and sold in interstate commerce as aforesaid in the Mid-Western area (including the Western District of Wisconsin), and have arbitrarily, by reason of the provisions of the prevailing form of jobber contracts above described, exacted large sums of money from thousands of jobbers with whom they have had such contracts in said Mid-Western area (including the Western District of Wisconsin), and in turn have intentionally raised the general level of retail prices prevailing in said Mid-Western area (including the Western District of Wisconsin). In so doing, defendants have then and there engaged in an unlawful combination and conspiracy in restraint of trade and commerce in gasoline among the several states of the United States in violation of Section 1 of the Act of Congress of July 2, 1890, known as the Sherman Antitrust Act."

It was also charged that the various defendants made purchases of gasoline from East Texas and Mid-Continent refiners, members of the East Texas Refiners Marketing Association and the Western Petroleum Refiners Association, "in excess of the amounts which the aforementioned defendant major oil companies would have purchased apart from their participation in said buying program, and they have been made at uniform, high, arbitrary, and non-competitive prices, and from time to time at progressively increased prices" in furtherence of the alleged conspiracy. A number of members of the two associations are named in the indictment and all "whether or not made defendants herein, have known of said unlawful purposes and have actively engaged and cooperated in the unlawful combination and conspiracy set forth in this indictment."

The three publications are charged with having participated in the alleged conspiracy and with having "knowingly published and circulated as such price quotations the wrongfully and artificially raised and fixed prices for gasoline" in their price reports.

The Wisconsin indictment may be but the first step in the campaign to break the hold of the major oil companies on gasoline prices, it was indicated at the Department of Justice August 5.

An investigation similar to that which preceded the Madison grand jury proceedings is being conducted on the Pacific Coast and inquiries are under way in other sections of the country, Attorney General Cummings disclosed.

There is no dearth of complaints to be used as the basis for such investigations. They have been piling into

[*Continued on page 67*]

GET BUSY

Legal departments have prospect of long fight

TULSA.

RETURN of the anti-trust indictment at Madison, Wisconsin, threw the legal wing of the industry into high gear. Although the trial may not take place for several months, attorneys are assembling a defense. Intimations in Madison were that the trial might be delayed until the grand jury has completed its investigation. There may be several weeks or months of this.

If all defendants are tried in one presentation to the court, the legal battle will be long and minutely fought.

Efforts to get statements from those indicted resulted in reference to legal departments of the concerns. The attorneys at the time had not read the indictment, consequently they had no comment. In each instance, however, it was evident that the work of the legal departments had been turned toward the defense.

Scores of lawyers, executives, defendants and tons of records will be poured into Madison for the trial.

L. L. Stevens, counsel for Standard Oil Company (Indiana), was quoted in newspapers to the effect that his company had not knowingly been party to any conspiracy to manipulate the price of gasoline through a buying pool.

The fact that the grand jury will reconvene August 19 to continue the oil industry investigation led many to believe that another indictment will be returned and involve concerns and individuals in Texas. One pool mentioned in the indictment was designated as existing for the buying of East Texas gasoline. With the exception of a perjury indictment of a Fort Worth buyer, the industry in Texas has not been indicted.

Want Equal Rules

ON TEXAS SIDE OF RODESSA AS APPLY IN LOUISIANA

JEFFERSON, TEXAS

LEASE holders and land owners on the Texas side of the Rodessa field want an opportunity to enjoy the same profits as that section of the field that lies within the boundaries of Louisiana. This important problem developed at the Texas Railroad Commission's special Rodessa field hearing, held at Jefferson on August 5.

Prior to the hearing, representatives of land and royalty owners had conferred with attorneys for the larger operators, and the group prepared a series of rules for operating the field on the Texas side. Many of the land owners and small independents declined to approve these plans and voiced their objections at the hearing.

E. B. Swanson, representative of the Department of Interior, and Malcolm Lafargue, observer for the Louisiana Conservation Commission, were present at the hearing. The full membership of the Texas Railroad Commission was present also.

The regulations proposed by the Marion and Cass County Land, Lease and Royalty Owners' Association, and which was approved by all large lease holders, included a complete set of rules for operating the field.

Twenty-acre spacing, with wells located 466 feet from the lease lines and 933 feet apart, was proposed. The rules provided for 100 feet of surface casing, a second string 2000 feet long, and a producing string set below the gas-oil contact. Wells would be tubed with 2½-inch pipe (maximum), which must reach within one joint of the bottom.

A maximum gas-oil ratio of 2000/1 was included, and those wells producing oil with ratios in excess of that figure would be permitted to produce daily from the reservoir a total volume of gas and fluid equivalent to that produced with the oil from that well which had the highest allowable in the field and yet produced with a gas-oil ratio of 2000/1 or less.

Gas wells producing from the field would have the same total displacement allowable as high gas-oil ratio oil wells, so that each well in the field would be allowed to produce daily the same volume from the reservoir.

Under the proration system suggested, each well would receive an acreage and a potential allowance. The total field allowable would be divided, and half would be allocated on potential, the other half on acreage, with the largest acreage allowable going to wells on full 20-acre units. If an operator has a lease which has more than 20 acres, but not more than 30 acres, then he may either drill an additional well, or receive an acreage allowable for the fractional unit, this allowable to be produced through the well on the full unit. No well in the field, however, would have its allowable curtailed below 30 barrels, the allowable provided in the marginal well law for wells producing from horizons below 5000 feet.

Proponents of the program emphasized the fact that the potential allowance was in addition to the acreage allowance, so that the plan differs widely from those which have acreage times potential, the latter system tending to result in straight acreage proration.

Dr. E. A. Stephenson, professor of petroleum engineering from the Missouri School of Mines and Metallurgy, told the commission that the plan proposed was unfair because it gave the advantage to the operators of leases smaller than 20 acres. He expressed the opinion that a straight acreage order would be far more equitable. He explained that under the system suggested, when the total well potential amounted to 1500 barrels per hour, when 1200 acres had been developed and the field allowable was 20,000 barrels per day, per-well allowances would be as follows:

Pot. bbls. per hr.	1 acre	5 acres	10 acres	20 acres
10	74	108	149	233
15	108	141	183	266
20	141	174	216	300
25	175	209	250	333
30	208	241	283	367

Advocates of the plan suggested that it be adopted by the commission and enforced pending a hearing on Rodessa by Louisiana conservation officials. If that body failed to adopt, in principal, the same regulations, then the Railroad Commission was asked to abandon these rules and substitute rules that would conform to those effective in Louisiana.

The first gas well was brought in in Rodessa in August, 1930, but oil was not discovered until July 7, 1935, the commission was told. Since that time 248 oil wells have been completed in Louisiana and 28 in Texas. Studies of the field

[*Continued on page 64*]

RODESSA CUT

Louisiana wells reduced 25 barrels daily each

SHREVEPORT

THE per well allowable in Rodessa on the Louisiana side of the field was reduced 25 barrels from the July allowable to 250 barrels for the month of August. The total for the Louisiana side of the field as of August 1 is 57,000 barrels. The rest of North Louisiana was unchanged at 20,000 barrels. The total for south Louisiana fields was placed at 153,250 barrels for August, or a total for the state of 230,250 barrels.

LECHE STUDIES

Conditions on Louisiana side of Rodessa field

SHREVEPORT

HIGH officials of both Texas and Louisiana gave close and personal attention to the problems of the Rodessa field last week. The Texas Railroad Commission (see page 9) held a hearing at Jefferson, Marion County, to hear views on regulations for the Texas side of the field, especially as to whether to make a space rule of one well per ten acres or one well per twenty acres.

On the Louisiana side of the field, Governor Richard W. Leche of Louisiana paid an official inspection visit to Rodessa in company with Dr. J. A. Shaw, director of the minerals division Louisiana Conservation Commission. Governor Leche also conferred with a number of operators as to the solution of the problem of waste gas in the Rodessa field which has become of great import as each well completed makes from one million to ten million cubic feet of gas daily with the oil yield and the flares can be seen for many miles.

Governor Leche announced after these conferences that he would ask for suggestions for elimination of this waste and for regulation of this from operators for a period of thirty days, after which he would announce a definite policy handling this matter. It was the governor's first visit to the field since his inauguration in May.

SAME ALLOWABLE

California August output is left at July level

LOS ANGELES.

MEMBERS of the Central Committee of California Oil Producers at a recent meeting approved the allocation committee's recommendation that the August crude quota remain unchanged from the July level of 544,000 barrels daily. There will be no change in the method of allocation from that in effect during July.

Cheers greeted Chairman Vander Leck's announcement that California crude output as of July 28 had dropped to 552,238 barrels, the lowest level since last March. The state's average for the first 28 days of July, 575,388 barrels, was 829 barrels under the similar period for June. The consistent increase in gasoline demand is expected to equalize crude production for the month with little, if any crude, going into storage, according to L. L. Aubert, chairman of the Allocation Committee.

An agreement by Lakeview operators, with one exception, to shut in output from wells producing from the Hallmark zone in that pool during the last ten days of each month will eliminate a 5000-barrel excess which has prevented Lakeview operators from the crude price increase effective elsewhere throughout the state. This agreement became effective July 25 at 7 a.m., to continue until August 1 at 7 a.m., and during the final ten days of each month thereafter.

W. J. Schultz of the Crescent Petroleum Company and Wilmax Oil Company were selected as alternate for Angus Crites, member-at-large for the San Joaquin Valley district.

Results Continue

By L. J. LOGAN, Associate Editor

ALTHOUGH this month is bringing further satisfactory results in the oil industry, it possibly will be a long time before there will be a matching of the unusually favorable record made in July.

In almost every respect, the statistics for July were encouraging.

Crude Control Effective

Featuring the record for the month was the exceptionally strict control of crude oil production. The restriction of crude output during July was the most effective for the past 15 months. Not since April, 1935, had there been such a small excess of actual production above the Bureau of Mines recommendations. The nation's production in July was but 33,322 barrels a day higher than the level suggested by the federal bureau.

In making its crude production allocations for July, the Bureau of Mines had contemplated that seasonally high consumption would offer an excellent opportunity for holding output somewhat under the market requirements and for meeting the rest of the demand through needed withdrawals from storage. Since the bureau's recommendations were closely followed, the desired reductions of stocks actually occurred.

Refinery operations were sufficiently well restrained to hold gasoline output substantially under the market requirements, and inventories of finished gasoline were drawn upon to the extent of more than 3,000,000 barrels. It is customary for reductions to be made in gasoline stocks during July of each year, but the withdrawal this July was greater than usual. The July decrease was only about 2,000,000 barrels in 1935 and about 3,000,000 barrels in 1934.

Despite the conservative activity at the refineries, however, the requirements for crude were greater than the current supplies, since such strict control of the wells prevailed. Consequently, some of the raw material had to be obtained from the storage tanks. During the month, the withdrawals from crude storage aggregated approximately 4,000,000 barrels.

Markets Generally Steady

The strict control of wells and refineries naturally promoted steady markets for crude and products during July. Crude prices were unchanged everywhere except in two Wyoming fields, where local conditions caused a 10-cent cut. Gasoline tank-car prices for the country as a whole showed a slight improvement during the month, having risen a point in certain districts. Retail prices of gasoline were generally unchanged, but small declines in several areas caused a slight recession of the average price for the United States.

At the close of July, gasoline tank-car prices averaged about one half-cent higher than one year previously, while the retail prices showed a little less improvement.

Although the gasoline market was steady during July, the large inventories of motor fuel apparently were acting as a brake on prices. Gasoline stocks were built to an all-time record peak the past spring, and although gasoline consumption also has been running at all-time record levels, the stocks were somewhat greater than justified by the demand. The heavy stocks undoubtedly have tended to hold the prices down.

Apparently due in large part to the severe drought in the Middle West, the kerosene market continued weak during July. Prices lost additional ground, and were a quarter-cent a gallon lower at the end of the month than at the beginning, at Mid-Continent refineries. The demand for kerosene on the part of the farmers of the Middle West was appreciably reduced by the adverse weather conditions. The drought also has interfered with gasoline consumption.

Drilling More Conservative

While the oil industry was practicing temperance in the operation of wells and

United States Drilling and Production, July, 1936, and Cumulative for Year

STATE OR DISTRICT	MONTH OF JULY, 1936						CUMULATIVE, JANUARY THROUGH JULY, 1936					
	*Completions	Oil Wells	Gas Wells	Failures	Initial Prod-Bbls. Daily	Total Bbls. Oil Prod.	*Completions	Oil Wells	Gas Wells	Failures	Initial Prod-Bbls. Daily	Total Bbls. Oil Prod.
Arkansas	13	1	1	11	67	920,750	56	14	2	40	5,465	6,354,050
California	89	62	3	24	26,587	†17,820,500	642	435	12	195	210,128	125,981,269
Colorado	....	....	....	....	.....	142,050	6	3	....	3	2,150	952,800
Eastern States	175	45	82	48	552	3,426,600	1,729	505	756	468	12,716	22,598,450
Illinois	....	....	....	....	.....	.....	4	....	4	....	.....	.....
Indiana	7	1	3	3	50	.....	128	24	40	64	728	.....
Kentucky	12	10	....	2	278	.....	137	78	6	53	5,825	.....
Ohio	124	30	59	35	216	.....	1,075	311	478	286	5,479	.....
West Virginia	32	4	20	8	8	.....	385	92	228	65	684	.....
Kansas	151	111	5	35	110,509	4,758,800	912	654	30	228	615,131	31,588,700
Louisiana	69	48	5	16	58,328	7,129,000	584	391	67	126	1,033,581	44,508,000
North Louisiana	39	27	5	7	45,485	2,512,700	330	216	61	53	928,682	14,565,550
South Louisiana	30	21	....	9	12,843	4,616,300	254	175	6	73	104,899	29,942,450
Michigan	59	21	28	10	1,864	1,012,450	433	190	....	122	34,690	7,521,800
Montana	17	11	3	3	1,140	507,150	79	63	7	9	6,378	3,035,050
New Mexico	55	53	....	2	100,356	2,294,150	323	295	10	18	563,038	14,048,150
Oklahoma	263	211	7	45	811,589	16,858,500	1,652	1,149	77	426	2,440,201	112,879,250
Southeastern States	1	....	....	1	.....	.....	8	....	....	8	.....	.....
Alabama	....	....	....	....	.....	.....	2	....	....	2	.....	.....
Florida	....	....	....	....	.....	.....	1	....	....	1	.....	.....
Mississippi	1	....	....	1	.....	.....	5	....	....	5	.....	.....
Texas	966	715	23	228	1,166,686	35,423,400	7,012	5,265	202	1,545	8,193,894	238,200,500
East Texas	237	216	1	20	814,051	13,234,700	1,734	1,629	3	102	5,811,206	93,232,900
East Central Texas	19	11	2	6	38,576	1,728,800	141	100	7	34	283,603	10,813,650
North Texas	178	91	....	87	16,185	1,843,600	1,240	676	6	558	74,066	12,402,600
South Texas	258	179	6	73	79,358	2,619,350	1,830	1,357	53	420	719,210	16,442,000
Texas Gulf Coast	83	60	2	21	24,583	7,739,000	637	456	19	162	194,620	50,228,250
Texas Panhandle	47	34	12	1	15,347	1,905,750	378	270	92	16	150,351	12,998,750
West Texas	135	118	....	17	178,269	5,555,600	791	669	8	114	953,868	36,703,500
West Central Texas	9	6	....	3	317	796,600	261	108	14	139	6,970	5,378,850
Wyoming	8	7	1	....	4,909	1,172,850	36	30	4	2	29,170	7,611,150
Total United States	1,866	1,285	158	423	2,282,587	91,466,200	13,472	8,994	1,288	3,190	13,146,542	615,279,169

* July completions shown here cover not the calendar month, but the four weeks, or 28 days, ended July 25.
† Preliminary, subject to slight revision.

To Be Favorable

CONDITIONS STILL GOOD AFTER REMARKABLE SUCCESS IN JULY

United States Drilling and Production in First Seven Months of 1936 and 1935

STATE OR DISTRICT	WELLS COMPLETED			BBLS. OF CRUDE PRODUCTION		
	In 1936 (7 Mos.)	In 1935 (7 Mos.)	Percent Change	In 1936 (7 Mos.)	In 1935 (7 Mos.)	Percent Change
Arkansas	56	89	− 37	6,354,050	6,555,800	− 3
California	642	624	+ 3	125,981,269	108,544,716	+ 16
Colorado	6	6	−	952,800	911,700	+ 4
Eastern States	1,729	1,394	+ 24	22,598,450	22,357,100	+ 1
Kansas	912	728	+ 25	31,588,700	30,981,700	+ 2
Louisiana	584	416	+ 40	44,508,000	26,667,950	+ 67
North Louisiana	330	165	+100	14,565,550	4,879,800	+198
South Louisiana	254	251	+ 1	29,942,450	21,788,150	+ 37
Michigan	433	247	+ 75	7,521,800	8,173,600	− 9
Montana	79	73	+ 8	3,035,050	2,322,200	+ 30
New Mexico	323	163	+ 98	14,048,150	10,557,000	+ 33
Oklahoma	1,652	1,281	+ 29	112,879,250	106,103,150	+ 6
Southeastern States	8	14	− 43	.....	.....	.....
Texas	7,012	6,764	+ 4	238,200,500	218,939,300	+ 9
East Texas	1,734	2,815	− 38	93,232,900	94,491,400	− 1
East Central Texas	141	128	+ 10	10,813,650	10,681,850	+ 1
North Texas	1,240	1,249	− 1	12,402,600	12,304,000	+ 1
South Texas	1,830	1,013	+ 81	16,442,000	12,629,650	+ 30
Texas Gulf Coast	637	604	+ 5	50,228,250	38,147,550	+ 23
Texas Panhandle	378	331	+ 14	12,998,750	12,841,750	+ 1
West Texas	791	391	+102	36,703,500	32,448,950	+ 13
West Central Texas	261	233	+ 12	5,378,850	5,394,150	− 1/3
Wyoming	36	34	+ 6	7,611,150	7,450,200	+ 2
Total United States	13,472	11,833	+ 14	615,279,169	549,564,416	+ 12

refineries during July, it also became more conservative than in previous months in drilling activity. Several months ago crude production was obviously excessive, and it appeared that one of the important reasons for the excess was the large amount of drilling. During July, however, the field work was curtailed to the lowest level since April. Well completions during the month were about 6 percent lower than in June. They were, however, about 9 percent more numerous than in July, 1935.

Strict Control in Four States

The unusually effective restriction of crude production during July was due to the concerted, strict regulatory efforts in Oklahoma, Kansas, Texas, and New Mexico. Because of the strict control in those four states, the national results were exceptionally successful, despite the fact Louisiana and California continued to produce substantially above the Bureau of Mines recommendations. These six states are the leaders in crude production. During July, three of the leaders produced less than their federal allocations. They were Oklahoma, Kansas, and Texas. New Mexico produced only a little more than its quota. Louisiana and California produced substantially more than their allocations, but showed smaller excesses than in June. Outside of these six leading states, aggregate production was closely in line with the Bureau of Mines recommendations, showing but a small excess.

July was the second successive month of underproduction in Oklahoma and Kansas, while Texas previously had been above its allocations.

For the nation as a whole, production in July, averaging 2,950,522 barrels daily, was only 33,322 barrels a day higher than the Bureau of Mines recommendation. In June there had been an excess of 115,608 barrels daily, while overproduction averaged 149,753 barrels daily in May, 117,300 barrels daily in April, and 89,850 barrels a day in March.

Oklahoma had the strictest control of production among all the states in July. Its output was 543,822 barrels daily, or 25,978 barrels per day less than the Bureau of Mines allocation. In the previous month Oklahoma had been 2735 barrels a day under its quota.

Kansas had the second largest underproduction in July. Its output of 153,251 barrels daily was 10,949 barrels a day less than the federal allocation. In June the state underproduced 7178 barrels daily.

Texas during July averaged 1,142,690 barrels daily, or 3810 barrels a day less than the Bureau of Mines recommendation. The state had overproduced 27,173 barrels daily during June.

New Mexico showed an excess of 4605 barrels daily in July, in averaging 74,005 barrels daily. That compared with an excess of 4733 barrels daily in June.

Louisiana in July continued as the leading violator of the Bureau of Mines schedule for crude production, having averaged 229,968 barrels daily, or 43,168 barrels daily excess. That was, however, a slightly smaller excess than the 46,727 barrels daily in June.

California remained the runner-up in overproducing the Bureau of Mines recommendations, although there was substantially better adherence to the federal schedule than in the previous month. The state averaged 574,855 barrels production daily in July, or 24,055 barrels a day more than the federal allocation. In June the excess had been 42,740 barrels daily.

Outside of the six leading states, production in July averaged 231,931 barrels daily, or 2231 barrels a day

Excesses of Average Daily Crude Production Above Bureau of Mines Recommendations

(Barrels Daily)

MONTH	California	Kansas	Louisiana	New Mexico	Oklahoma	Texas	Other States	United States
March, 1936:								
Production	566,510	147,600	191,232	60,532	515,484	1,111,194	236,198	2,828,750
Demand	538,800	142,000	151,400	49,300	506,300	1,104,000	247,100	2,738,900
Excess	27,710	5,600	39,832	11,232	9,184	7,194	*10,902	89,850
April, 1936:								
Production	572,671	153,600	210,642	63,692	550,170	1,145,953	217,872	2,914,600
Demand	552,600	146,000	160,900	63,200	525,000	1,122,800	226,800	2,797,300
Excess	20,071	7,600	49,742	492	25,170	23,153	*8,928	117,300
May, 1936								
Production	576,643	156,679	228,040	74,600	546,182	1,163,460	230,449	2,976,053
Demand	544,000	150,100	170,500	65,900	538,300	1,132,500	225,000	2,826,300
Excess	32,643	6,579	57,540	8,700	7,882	30,960	5,449	149,753
June, 1936:								
Production	578,240	145,922	222,427	73,033	549,765	1,152,873	231,648	2,953,908
Demand	535,500	153,100	175,700	68,300	552,500	1,125,700	227,500	2,838,300
Excess	42,740	*7,178	46,727	4,733	*2,735	27,173	4,148	115,608
July, 1936:								
Production	574,855	153,251	229,968	74,005	543,822	1,142,690	231,931	2,950,522
Demand	550,800	164,200	186,800	69,400	569,800	1,146,500	229,700	2,917,200
Excess	24,055	*10,949	43,168	4,605	*25,978	*3,810	2,231	33,322

* Under production

more than the combined federal quotas. In those states the excess had been 4148 barrels daily during June.

August Control Less Strict

It is virtually assured that this month will not witness as strict an adherence to the Bureau of Mines recommendations as that which prevailed in July, since Oklahoma and Kansas now have state allowables conforming with the federal allocations, while in June and July they followed state allowables under the federal quotas.

However, the national production in August is due to be reasonably well in line with the bureau suggestions. Texas and New Mexico, as well as Oklahoma and Kansas, are following state allowables that conform closely with the federal allocations. Consequently, such national excess as may occur will be accounted for largely by Louisiana and California, as in past months. The national excess apparently will not be any higher than in various recent months, exclusive of July.

Finished Gasoline Stocks

(American Petroleum Institute figures, as shown in weekly reports.)

DATE	Total Barrels Reported
March 31, 1934	†57,098,000
April 28	56,011,000
May 26	54,493,000
June 30	51,405,000
July 28	48,597,000
August 25	46,120,000
September 29	43,850,000
October 27	41,993,000
November 17	*39,892,000
December 1	40,831,000
December 29	43,969,000
January 26, 1935	47,888,000
February 23	54,399,000
March 2	55,654,000
March 16	†57,406,000
March 30	56,388,000
April 27	55,097,000
June 1	53,180,000
June 29	50,007,000
July 27	48,157,000
August 31	43,787,000
September 28	42,976,000*
October 26	41,163,000
November 9	*40,780,000
November 30	43,190,000
December 28	46,472,000
January 25, 1936	50,368,000
February 1	52,831,000
February 29	60,881,000
March 21	†62,855,000
March 28	62,559,000
April 25	61,638,000
May 30	59,589,000
June 27	57,263,000
July 4	55,907,000
July 11	54,906,000
July 18	54,412,000
July 25	54,087,000
August 1	53,222,000

*Low point of year.
†High point of year.

Production Reflects High Demand

Despite the unusually strict regulation of crude production during July, the nation's output was comparatively high, reflecting the fact petroleum consumption is establishing new all-time records this year. The nation's crude production in July averaged 2,950,522 barrels daily. Since curtailment was stricter than in preceding months, the July output was lower than the 2,953,908 barrels per day produced in June and the 2,976,053 barrels daily recovered in May. But the production in July, 1936, was 9 percent higher than that in July, 1935.

During the first 7 months of this year, crude production amounted to 615,279,169 barrels, or 12 percent more than the output in the corresponding period last year. This increase in production has been largely justified by a similar increase in consumption of petroleum. The Bureau of Mines showed that in the first 5 months of 1936 the total demand for United States oils ran 10.6 percent higher than in the corresponding period of last year.

Requirements have been greater this year than last year for both export and domestic purposes. Export business has been better for both crude and refined oils. The increase in domestic demand has involved gains in consumption of practically all petroleum products, including gasoline, kerosene, gas oil and fuel oil, lubricants, wax, asphalt, road oil, and still gas.

United States Production

(Based on American Petroleum Institute estimates, which do not include oil that may have been surreptitiously produced.)

MONTH	Daily Average (Barrels)	Federal Estimate of Demand
January, 1934	2,233,505	2,183,000
February	2,239,070	2,183,000
March	2,339,950	2,282,800
April	2,420,950	2,366,200
May	2,575,380	2,366,200
June	2,588,100	2,528,300
July	2,560,550	2,530,300
August	2,475,300	2,449,300
September	2,431,950	2,341,700
October	2,364,150	2,325,800
November	2,375,400	2,340,300
December	2,414,600	[1]2,307,000 [2]2,460,300
January, 1935	2,500,850	2,460,300
February	2,521,250	2,526,100
March	2,568,800	2,520,300
April	2,559,750	2,527,300
May	2,601,350	2,561,200
June	2,695,100	2,651,000
July	2,707,150	2,660,000
August	2,676,250	2,600,600
September	2,737,750	2,613,000
October	2,780,850	2,554,200
November	2,825,900	2,563,700
December	2,826,850	2,540,200
January, 1936	2,818,300	2,559,200
February	2,774,450	2,648,100
March	2,828,750	2,738,900
April	2,914,600	2,797,300
May	2,976,053	2,826,300
June	2,953,908	2,838,300
July	2,950,522	2,917,200

[1] December 1-16.
[2] December 17-31.

Wells Completed in the United States

(Including Oil Wells, Gas Wells, and Dry Holes)

MONTH	Daily Average
January, 1933	30.0
February	30.6
March	26.6
April	25.5
May	25.6
June	21.1
July	23.1
August	30.7
September	36.5
October	40.9
November	46.9
December	47.7
January, 1934	39.7
February	38.1
March	40.6
April	44.0
May	50.7
June	51.5
July	53.6
August	51.3
September	43.2
October	49.6
November	49.9
December	48.3
January, 1935	47.9
February	49.6
March	48.8
April	58.5
May	63.6
June	58.6
July	60.9
August	62.8
September	57.9
October	57.1
November	55.2
December	54.2
January, 1936	52.4
February	51.6
March	60.6
April	69.2
May	*71.9
June	70.9
July	66.6

* Highest since July, 1930, when completions averaged 76.6 daily. Average dropped in August, 1930, to 52.4 and remained below that figure until July, 1934.

Crude Oil Stocks

Bureau of Mines figures as compiled monthly, comprising all crude in storage in the United States.

At End of:	Total Barrels In Storage
January, 1934	353,642,000
February	351,641,000
March	354,067,000
April	354,350,000
May	355,883,000
June	357,239,000
July	355,260,000
August	350,838,000
September	348,937,000
October	346,415,000
November	341,165,000
December	337,254,000
January, 1935	338,174,000
February	337,319,000
March	339,139,000
April	339,793,000
May	338,559,000
June	334,757,000
July	329,351,000
August	324,966,000
September	320,705,000
October	317,155,000
November	315,558,000
December	314,631,000
January, 1936	313,081,000
February	310,812,000
March	313,189,000
April	315,389,000
May	315,169,000

Trend of stocks situation since end of April, figures being from weekly reports of Bureau of Mines.

June 27	311,360,000
July 4	310,618,000
July 11	309,383,000
July 18	308,859,000
July 25	306,968,000

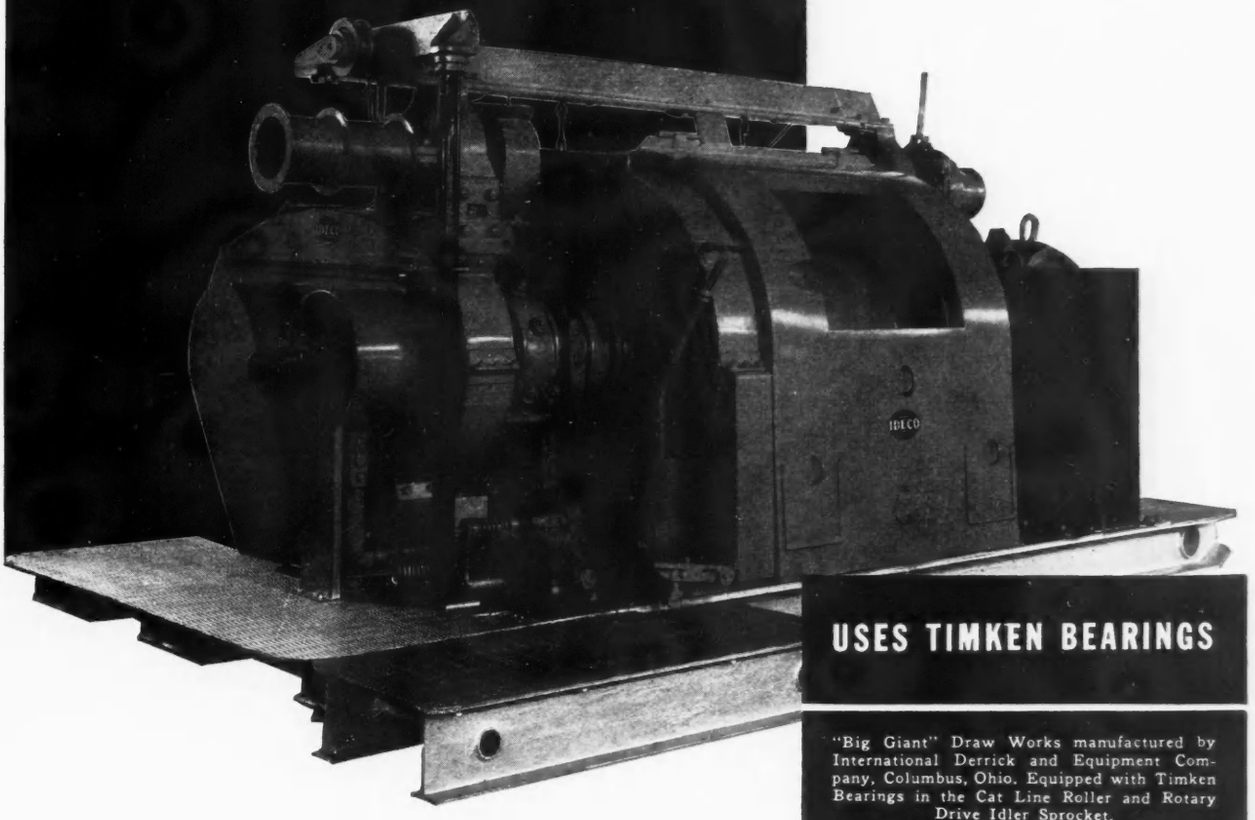
Stocks Lowest in 10 Years

In consequence of the strict curtailment of crude output in July, there was a further substantial reduction of the above-ground stocks of petroleum and products. The total stocks of all oils are the lowest for nearly 10 years. On June 1 the nation's total stood at 554,423,000 barrels, and further reductions occurred in June and July. The storage is back down to the proportions of early 1927. From the peak of 700,808,000 barrels of all oils held in storage in May, 1930, there has been a net withdrawal of about 150,000,000 barrels.

The rise and fall of above-ground

[*Continued on page 67*]

THE "BIG GIANT" DRAW WORKS



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MEN IN THE INDUSTRY'S NEWS

JESS R. SCARBOROUGH HAS BEEN ELECTED A VICE PRESIDENT OF THE MID-CONTINENT PETROLEUM CORPORATION

JESS R. SCARBOROUGH, superintendent of the land department of Mid-Continent Petroleum Corporation, was elected a vice president of the concern August 5. He will continue as the executive in charge of the land, scouting and geological departments of the Tulsa concern. Scarborough entered oil field work in 1915 following graduation from Texas Agricultural and Mechanical College. After four years as routabout, tool dresser and driller, he became scout for Cosden Oil & Gas Company (successor to Mid-Continent Petroleum Corporation) in the Ranger area of West Texas. He continued in that capacity until 1921 when he came to Tulsa as a member of the staff of the land department. In 1923 he became chief scout and a year later he was advanced to superintendent of the land department.

—Blank & Stoller

JESS R. SCARBOROUGH

JAMES P. STEPHENS has been promoted by Phillips Petroleum Company to the position of central division production superintendent in Oklahoma, succeeding H. L. McQuiston, who resigned to join The Clymore Companies in San Antonio. Stephens, who has been district superintendent in the central division, will continue to make his headquarters in Oklahoma City, but will now have offices in the First National Building. Stephens grew up in the oil business, having been born in Marion, Indiana, in 1892. He came to Oklahoma and gained employment with P. J. White and Harry F. Sinclair in the White Rock pool, north of Tulsa, when only 16 years of age. From 1910 to 1918, he was employed by Wolverine Oil Company. During this period, Stephens advanced from roustabout to farm boss. Phillips Petroleum Company obtained his service in 1918, and was placed in charge of production for the company at Ranger. He has been with the company in various producing departments since that time, except for two years he spent as drilling superintendent to Wallace and Brooks at Breckenridge. He moved to Oklahoma City in 1930, when Phillips Petroleum Company was conducting a fast drilling campaign in this field, and succeeded L. B. Holland as district superintendent, when the latter resigned several years ago to go into consulting engineering work.

W. W. LECHNER, East Texas producer with headquarters at Dallas, recently departed, accompanied by his wife, on an extended vacation trip that will include visits to Honolulu and Australia.

CHARLES B. MANBECK, former refinery manager for Standard Oil Company of Indiana, who died Sunday, August 2, at his home in Alton, Illinois, was buried Wednesday afternoon, August 5. He was retired in 1934 after 44 years of service.

TOM J. HAMILTON, who has been district foreman in Western Kansas for Phillips Petroleum Company, has been transferred to Oklahoma City, where he becomes district superintendent. He succeeds Jim Stephens, who has been promoted to the position of division superintendent, which was vacated when H. L. McQuiston resigned.

A. R. MAIER, chief engineer of Oil Well Supply Company, Dallas, is sailing September 6 from New York on the S. S. Bremen for an extended trip through Europe, during which time he will visit his old home in Germany. Mair's family has been visiting his parents in Germany for several months, and will return with him when he completes his tour some time in October.

WILLIAM J. SLOAN of the Sloan & Zook Companies of Bradford, Pennsylvania, while in Houston the past week, announced the opening of an office in Houston at 923 Shell Building. Paul D. Torrey will be in charge of the office and Clark F. Barb will also be in the Houston office. The companies' first operations in the Gulf Coast area will be at Splendora, Texas.

WILLIAM G. RANKIN of New Orleans is to be appointed Louisiana Conservation Commissioner, according to an announcement by Governor Richard Leche of Louisiana. He will succeed Robert S. Maestri, who this month becomes mayor of New Orleans. Rankin is a member of

CARL REISTLE, JR., JOINS PETROLEUM ENGINEERING DEPARTMENT OF HUMBLE OIL & REFINING COMPANY

C. E. REISTLE, JR., has been appointed assistant chief petroleum engineer in charge of the petroleum engineering department for Humble Oil & Refining Company, succeeding W. T. Doherty, who recently was made West Texas division superintendent for the company. He will be located at Houston.

After graduation from the University of Oklahoma in 1922, Reistle joined the staff of the Bureau of Mines at Bartlesville, and was transferred to the Laramie, Wyoming, office in 1924. He remained there until 1929 when he returned to Bartlesville, and was put in charge of the vertical flow and sand performance work carried on by that department. In that connection he spent most of 1932 in the East Texas field. The result of this study was published in Bureau of Mines Reports of Investigations No. 3211. He is the author of many other reports and papers.

In order to serve as chairman of the East Texas Engineering Association, Reistle took a leave of absence from the Bureau of Mines, and directed engineering work in the East Texas field for the past three years. The association is composed of operators with properties in the field, the work having been carried on in a cooperative manner.

C. E. REISTLE, JR.

the Louisiana Tax Commission at present and was an auditor in the conservation department for eight years under the administration of Dr. Val Irion.

S. W. SHELTON has been transferred to Wichita, Kansas, from Oklahoma City, and will serve as district foreman for Phillips Petroleum Company in Western Kansas, which position was left vacant when Tom J. Hamilton was made district superintendent in the Oklahoma City area.

C. SCHURR, geologist for Mid-Continent Petroleum Corporation, has been transferred to the Gulf Coast district and will make headquarters in Houston. He was formerly located in the West Texas district, headquartering at Midland.

C. M. NYE, in charge of the land department for Sunray Oil Company in Oklahoma City, was moved to the Tulsa offices of the company August 1.

J. HARRY WOOD, vice-president and general manager of Atlantic Pipe Line Company, Dallas, is vacationing in California.

M. B. SWEENEY, agent in charge of Sun Oil Company's Dallas production division, returned to duty last week after spending three weeks in Colorado.

A. ROGER DENISON, chief geologist in the Fort Worth Division for the Amerada Petroleum Corporation, returned to headquarters at Fort Worth last week after spending several weeks in Wyoming.

OPERATING CHANGES MADE IN LAND AND EXPLORATION DEPARTMENT OF CONTINENTAL OIL COMPANY

MESSRS. HAGGARD, CLARK AND ATHY CONSTITUTE A MANAGING COMMITTEE

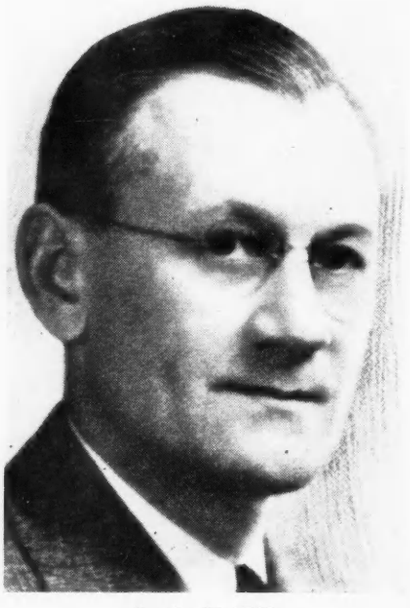
DUE to the resignation of H. K. V. Tompkins, who was manager of the lands and exploration department east of the Rocky Mountains, several operating changes have been made in Continental Oil Company, Ponca City. The position of manager of the lands and lease department has been discontinued. W. E. Haggard, who has been general superintendent of the lands and scouting division, is in charge of lands and scouting work. G. C. Clark, chief geologist, heads the geological division. Dr. L. F. Athy, chief geophysicist, is in charge of the geophysical division. All these divisions formerly came under the supervision of Tompkins, as manager of the lands and exploration department. Messrs. Haggard, Clark and Athy will report to Dan Moran, president, and, as a committee, will be responsible for the coordination of future activities of the lands and exploration department east of the Rocky Mountains.

Haggard was born in Bloomington, Illinois, and graduated from high school at Oklahoma City, Okla. From 1916 to 1919, he was employed as a statistician in the purchasing department of Empire Gas & Fuel Company at Bartlesville. From 1919 to 1924, he was lease and field production man for Emerald Oil Company at Winfield, Kansas. He was employed by Continental Oil Company on July 7, 1924, as lease agent at Denver, Colorado. In 1925, Haggard became purchasing agent in the Rocky Mountain division. He became land superintendent in the Rocky Mountain division for the company in 1927, continuing to make his headquarters in Denver. In 1928, he was made assistant superintendent of land operations for the company, and was transferred to Ponca City, where he still resides. In September of 1928, another promotion made him superintendent of land operations. In 1930, found Haggard occupying the office of the superintendent of the land division. He became general superintendent of the land division in 1933, which position he continues to occupy as head of the land division.

Clark, who heads the geological division and represents it on the coordinating committee, became chief geologist for the company on November 9, 1928, after having joined Continental Oil Company as geologist on December 27, 1919. He was born in Kansas, but obtained the degree of Bachelor of Arts in 1913 from the University of Oklahoma. Upon graduating, he became mathematics instructor and football coach at East Central Teachers College, which position he filled until 1918, when he became affiliated with Empire Gas & Fuel Company.

Dr. Athy was born in Bryan, Ohio. He obtained his B.S. degree in Physics from Denison University in 1919, which was followed by post graduate work at Ohio State University. His Ph. D. in geology came from the University of Chicago in 1925. Between 1919 and 1925, when he completed his education, he served two years with the Illinois State Geological Survey. In April, 1925, he became assistant geologist in the research department for Continental Oil Company, and since this time has advanced steadily. On June 1, 1926, he became a geologist in the research department, and on January 1, 1927, was made a geologist on the general staff. July 1, 1929, he was made assistant superintendent of geophysical operation. He became acting superintendent of geophysical operations on November 19, 1930, and on May 1, 1932, was made superintendent of the geophysical division, which position he continues to occupy.

W. E. HAGGARD



G. C. CLARK

DR. L. F. ATHY

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Unusually adaptable to changing field conditions. Counterbalances clear derrick floor, eliminating necessity for special foundations and facilitating setting and moving.

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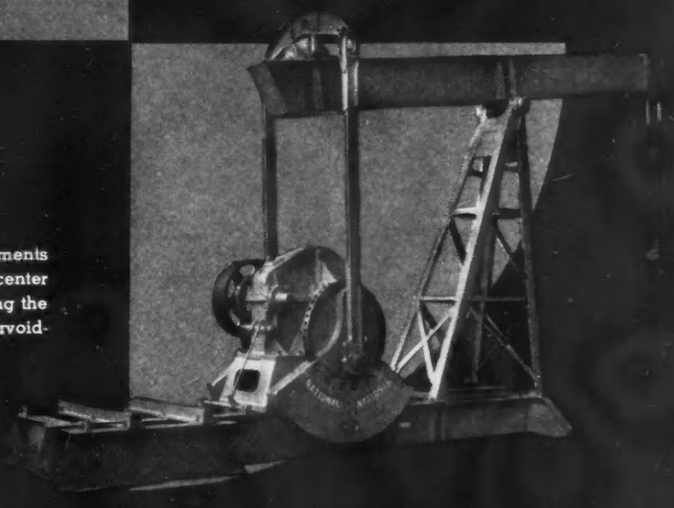
Also available in single reduction type 34 HP (tentative API) 20 spm., incorporating same features of design and construction.



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Landon's Oil Record

ICKES OPENS CAMPAIGN WITH CHARGES OF INCONSISTENCY

WASHINGTON, D. C.

GOVERNOR Alf M. Landon's record as an oil man was assailed sharply by Secretary of the Interior Harold L. Ickes August 3, in his first campaign speech in behalf of the re-election of President Roosevelt.

While his address, delivered over a coast-to-coast network of the Columbia Broadcasting System, touched upon a number of issues, Secretary Ickes, familiar with the oil situation through his service as administrator of the petroleum code, devoted the greater part of his time to the Republican nominee's oil history.

"Governor Landon now is opposed to governmental regulation of industry, although so far he has been careful not to specify when, where or how," the Secretary declared. "As in other particulars, he is content to rely upon generalities that do not even glitter. But, again following the lead of the Liberty League and the great bankers and industrialists, he is against so-called regimentation. He wants to return to the era of Hoover when free, open and unrestricted competition prevailed. Yet here is what Governor Landon said about competition in his speech delivered at the oil conference:

"'When unbridled competition is injurious to the public, a regulation of that competition should be permitted under governmental supervision.'

Wanted Regulation

"As a 'practical' Progressive, Governor Landon is now opposed to governmental regulation and control, but as a practical oil man the record shows that he has not only been in favor of such regulation and control but even of the fixing of minimum prices. He has also been for a dictator, at least so far as the oil industry is concerned. On July 17, 1933, the practical oil man sent a long telegram to the Secretary of the Interior in which he said:

"'Federal control under present act is our only hope and if we are to be protected it will be necessary for a dictator to exercise authority in the premises and fix allotments to states, also pools within states, also storage withdrawal anl imports.'

"It would be interesting if the Republican candidate would discuss his present firm stand against price-fixing in the light of his demand for it in the oil industry in 1933," the Secretary added.

Governor Landon continued to be enthusiastic over the operation of the oil code, Mr. Ickes continued, referring to a telegram sent the President on June 4, 1934, in which, he quoted, the Governor said:

"Improvement in market price structure of crude oil owing to federal control of coordination between states has meant an increased purchasing power to Kansas alone of $33,000,000 a year based on present prices as compared with distress prices of a year ago. * * * Unless the pending national legislation goes through we are threatened with another debacle and collapse of this market which, of course, will affect the price of coal also by reason of cheap fuel oil coming in competition. May I urge the importance of this legislation being passed before Congress adjourns."

"The bill referred to by Governor Landon," the Secretary explained, "was the one introduced by Congressman Disney of Oklahoma in the House and by Senator Thomas of Oklahoma in the Senate. It provided for the strictest possible federal regulation and control of the petroleum industry. Practical-oil-man Landon was in favor of federal regulation and control and the fixing of minimum prices for petroleum until he became a candidate for President. 'Practical'-Progressive Landon today is opposed to federal regulation and control of petroleum or of any other product. What caused this change?

HAROLD L. ICKES

Oil is his text in opening campaign against Landon

"Governor Landon in his speech of acceptance said:

Interstate Compact

"'More recently, as a small independent oil producer, I say my industry ask for federal regulation because of a selfish exploitation of a natural resource which, once wasted, cannot be replaced. When federal regulation failed, the industry made progress in the solution of the problem, by turning to state action, supplemented with interstate compacts as provided by the amazing foresight of the makers of the Constitution.'

"Once again let us turn to the record. Prior to 1933 an attempt had been made to regulate the production of crude petroleum by an interstate compact. This had failed because several oil-producing states, including California, one of the three largest producers, had refused to enter into the compact. It was the breaking down of this attempted compact that made necessary the federal regulation and control that later had the enthusiastic support of Governor Landon. Governor Landon knows this as well as any other man in the United States, and better than most, because, as the record shows, he never ceased to be a practical oil man even while serving as Governor of the state of Kansas.

"Indubitably Candidate Landon is a 'practical' Progressive.

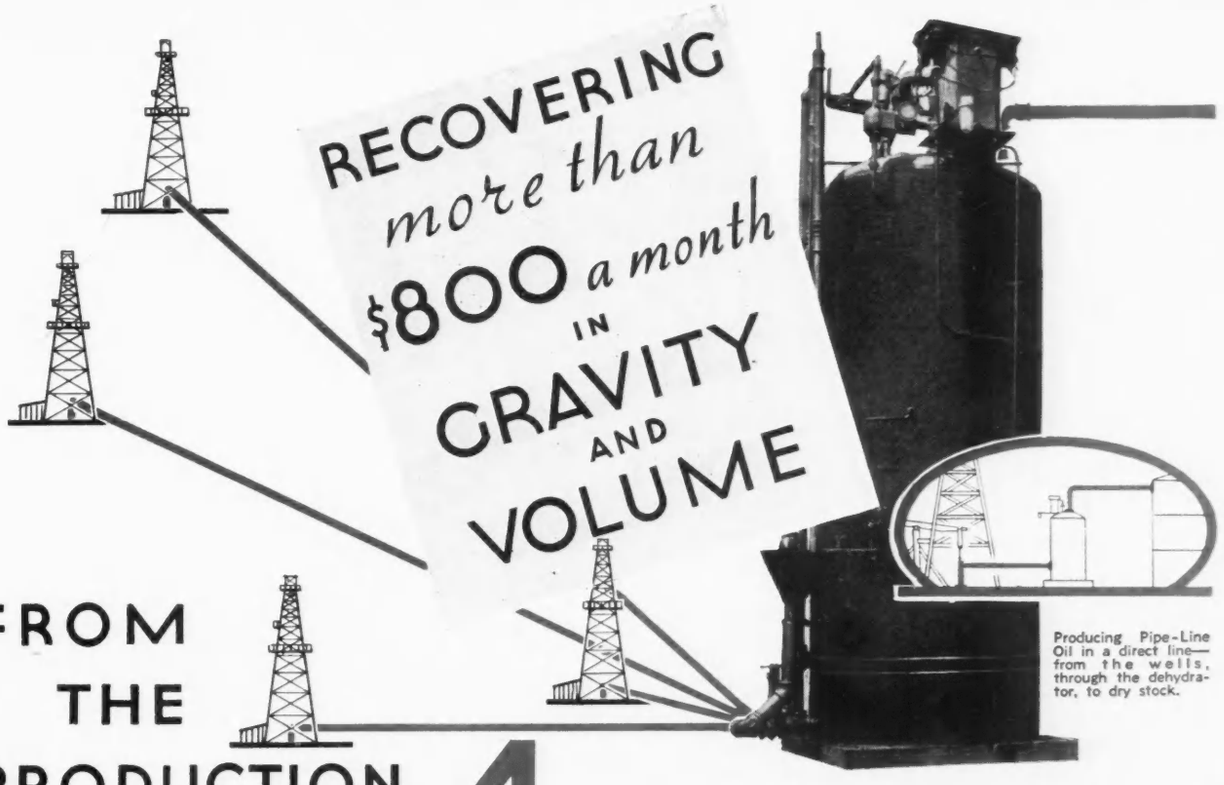
"The 'amazing foresight of the makers of the Constitution' permitted a compact between the oil-producing states in 1933 just as much as it does now. But Governor Landon was not a 'practical' Progressive in 1933. Neither was he a candidate for President. He was a practical oil man and he wanted results. With a recent dismal failure of the compact method of controlling excess production confronting him, he was for strict regulation and control by the federal government. He said so in his telegrams to the President and in communications to the Secretary of the Interior. He offered to appear before a congressional committee in support of a strict control bill. He had had experience in appearing before Congress on oil legislation.

"It happens that there exists additional and conclusive evidence of Governor Landon's views on the compact method of regulating and controlling a product that goes into interstate commerce. As late as January 5, 1935, he wrote a letter to Mr. Wirt Franklin, president of the Wirt Franklin Petroleum Corporation, in which he said:

"'The compact-between-states idea has been agitated ever since Hoover submitted it to the Colorado Springs conference and it is about the deadest horse I know, if there is any possibility of one dead horse being deader than another.'

"Governor Landon did not seem to think very much of Mr. Hoover as a statesman. I wonder how Candidate Landon feels on the subject. Governor Landon poohpoohed the idea of regulating the production of oil by a state compact. Now, apparently, Candidate Landon is enamored of the idea of state compacts. If oil can be regulated by state compact, why not all other commodities and interests that the states have in common? Then we could abolish, in large part, the federal government and revert to an era in which a 'horse and buggy candidate' would feel perfectly at home.

"In the quotation last made from Candidate Landon's acceptance speech appears the charge that federal regulation of the petroleum industry has failed. This is not an accurate statement of fact. That it had not failed but, on the contrary, was a tremendous success, at least in the eyes of Governor Landon, is fully attested by quotations that I have already given from his various letters and telegrams."



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The test was made on a group of four wells producing an average of less than one hundred barrels each per day. Results showed a loss of at least 1.5° A.P.I. in gravity was being sustained, with an accompanying loss of 4% in volume. Recovery of these losses through the application of a single Petreco Electro-flow dehydrating unit amounted to $460.00 in gravity and $380.00 in volume - - - a total of more than $800.00 a month or approximately $10,000.00 a year; plus additional savings in fuel for heating, and the salvaging of all heating equipment, wet oil storage tanks, gun barrels, and settling tanks.

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Restores the Gravity - Saves Volume

Gulf Coast Reserves

WERE ENLARGED BY DEVELOPMENTS DURING FIRST HALF OF THE YEAR

By CHARLES LEYENDECKER
Staff Writer

THE Texas and Louisiana Gulf Coast, which is a 50,000,000-acre strip of land approximately 200 miles wide lying along the Gulf of Mexico and bordered by the Mississippi state line on the east, and Jackson and Calhoun Counties on the west, added around 74,000,000 barrels of crude oil to the already established and known producible crude reserves the first six months of 1936. These figures are taken from a survey recently completed by a major company.

The Texas sector of the Gulf Coast, which is the western portion of the area, embraces 32 counties, and accounted for the entire amount of new reserves. Around 79,000,000 barrels of oil was discovered in this area during the first six months of 1936. However, considering 31,000,000 barrels of oil, which was produced in the Texas Gulf Coast during the six month period, there was a total of 110,000,000 barrels of oil discovered. The seven new fields which were discovered from January 1, 1936 to July 1, 1936, are estimated to have found around 32,000,000 barrels of oil, with the balance of the increase coming from additions to reserves in old fields.

The Louisiana Gulf Coast embraces 38 parishes. It fell short of discovering sufficient new reserves during the first six months of 1936. The estimated new oil discovered in the area is 20,000,000 barrels, but during that period of time there was 25,000,000 barrels of oil produced, leaving 5,000,000 barrels drawn from the old reserve as of January 1, 1936. Only one oil field was discovered in Louisiana during the six month period, and it is estimated that it has a recovery of 2,000,000 barrels.

Increase in reserves in the Texas Gulf Coast was brought about through discovery of seven new fields and developments in proven territory. Extensions and developments in fields such as Anahuac, Hastings, Pickett Ridge, and South Houston fields added materially to reserves. In the Louisiana Gulf Coast, Caillou Island, Jeanerette, Lafitte and Darrown Dome added what little reserves were found in this area during the first six months.

Over two million barrels of oil is still in reserve in the Texas and Louisiana Gulf Coast as of July 1, 1936, and the two areas have produced around 1,200,000,000 barrels of oil. The Texas Gulf Coast by the end of the year should pass the billion-barrel mark in production. On July 1, 1936, the area had produced approximately 977,000,000 barrels since the first discovery at Spindle Top in 1901.

From a standpoint of future possibilities the Texas and Louisiana Gulf Coast ranks among the foremost areas in the world. It is anticipated that few, if any, regions carry oil producing formations as deep and that few, if any, have as many different oil-bearing horizons. These factors will bring the territory more and more into the limelight as years pass.

Wildcatting in the two areas maintained a steady pace and no let up is likely for some time. A number of new prospects will be drilled this year due to lease expirations. With this steady pace of wildcat drilling in the Coastal area more new discoveries are sure to be found. During the first six months of 1936 there were 73 wildcats drilled in the Texas Gulf Coast and from these seven new oil fields were found, which brings the percentage of wildcats drilled to discoveries to about 1 to 10, which is a high average. The wildcats listed in an accompanying table are the total of tests drilled. Several drilled to shallow depths or were abandoned due to financial difficulties. The Louisiana Gulf Coast's average in discoveries to wildcats drilled is somewhat lower than the Texas Gulf Coast. There were 20 wildcats drilled and only 1 oil field discovered.

Listed below by months are the important new discoveries, new sands, extensions and other important factors in the Louisiana and Texas Gulf Coast for the first six months of 1936:

January—The Texas Company's Pierce Estate C-1 at Withers in Wharton County came in flowing pipe line oil to open a new Texas field. At the same time Superior Oil Producing Company's Adams

New Oil Discoveries in Gulf Coast During First Six Months of 1936

DISCOVERY WELL	County	Field	Date	Initial Prod.*	Gravity	Formation	Depth	REMARKS
The Texas Co., Pierce Estate C-1	Wharton	Withers	Jan. 4	360	26	Frio	5549	
Humble Oil & Refg. Co., Langham 1	Jefferson	Amelia	Feb. 12	511	29	Frio	6778	Producing over 400 feet in Frio formation.
Hamond Exploration Co., Cleveland 1	Matagorda	S. Bay City	Mar. 1	625	38	Frio	9361	Deepest producing field in the Texas Gulf Coast.
Dick Schwab's, Kirby Lumber Co. 1-A	Polk	Ace	May 31	288	40	Cockfield	4805	First commercial oil discovery in Ace field.
Sun Oil Co., Hughes 1	Galveston	Green's Lake	June 4	143	26	Plio-Miocene	3610	Abandoned after going to salt water. Second well made commercial producer.
Amerada-Stanolind, Dopsalus 1	Harris	Fairbanks	June 5	128	44	Cockfield	6820	Producing from very thin section of sand.
Sun Oil Co., Craig 1	Matagorda	Hawkinsville	June 14	256 (16 hrs.)	30	Miocene	5150	Well produced oil then went dead. Operators still swabbing.
Superior Oil Prod. Co., Bradley 1	Acadia	Bayou Mallet	Mar. 25	340	28	Oligocene	6385	First commercial oil well at Bayou Mallet.

*All gauges taken through small chokes.

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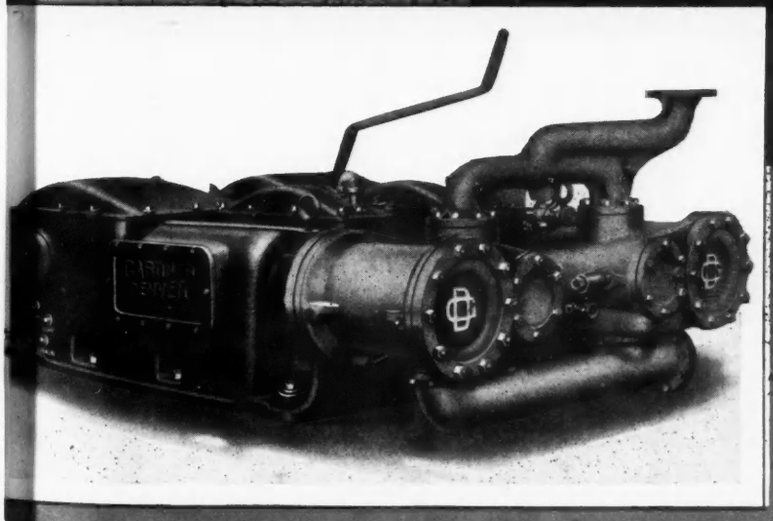
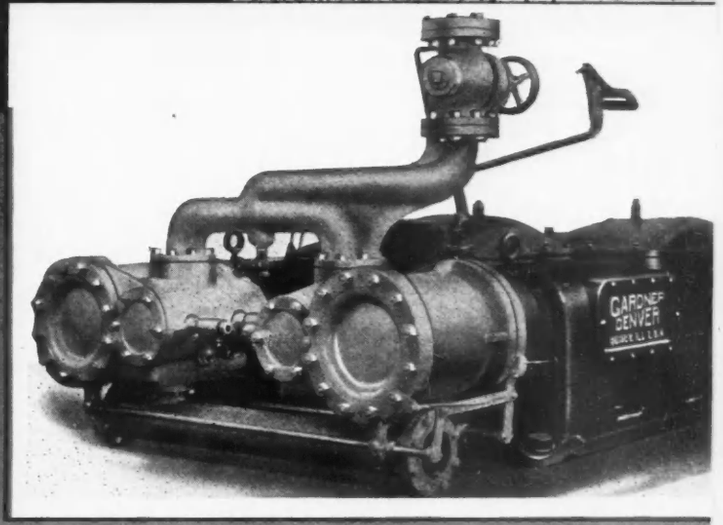


12 x 12 "Heavy Duty" Steam Drilling Engine. Piston Valve Type



14 x 12 "Standard" Steam Drilling Engine

"SERVING THE OIL AND GAS INDUSTRIES"

CONTINENTAL

Smith 1 at Bayou Mallet in Acadia Parish, Louisiana, established a new gas reserve when completed at 7198 feet for 3,200,000 cubic feet with a small amount of 50 gravity distillate. The Texas Company discovered a new salt dome at Lake Mongouloui in St. Martin Parish, when State 1 drilled into salt at 7540 feet and was later abandoned. The well had several showings of oil around 7200 feet. The Anahuac field, Chambers County, Hastings field, Brazoria County, and

Results of Wildcat Drilling in the Texas Gulf Coast During First Six Months of 1936

COUNTY	Wildcats Drilled	Discoveries
Austin	1	..
Brazoria	4	..
Burleson	1	..
Chambers	3	..
Colorado	2	..
Galveston	3	1
Hardin	7	..
Harris	9	1
Jefferson	8	1
Liberty	1	..
Madison	1	..
Matagorda	4	2
Montgomery	11	..
Orange	2	..
Polk	6	1
San Jacinto	4	..
Walker	2	..
Wharton	4	1
Total	73	7

English Bayou field, Calcasieu Parish, received major extensions during this month. At the close of the month, Humble Oil & Refining Company made a drill stem test on Langham 1, at Amelia, in Jefferson County, which showed oil in commercial quantities.

February—The first field discovered in this month was Humble Oil & Refining Company's Langham 1, at Amelia, in Jefferson County. In Louisiana, The Texas Company's L. L. E. Leeville 25 opened up a new sand at Leeville, in Lafourche Parish. The well was completed at 4862 to 4961 feet. Herton Oil Company found a shallow sand at Jeanerette, in St. Mary Parish with Roane 2 at 6048 feet. The Texas Company's Garden Island Bay 17 at Garden Island in Plaquemines Parish found a new producing sand at 4968 feet and was completed as a commercial oil well. The Dickinson field, Galveston County, Lafitte field, Jefferson Parish, Roanoke field, Jefferson Davis Parish, Withers field, Wharton County, and Turtle Bay field, Chambers County were extended.

March—The third new field of the year for the Texas Gulf Coast was opened by Hammond Exploration Company at South Bay City, when Cleveland 1 flowed 38 gravity pipe line oil from 9361 feet to establish a new depth record for Texas Gulf Coast producing fields. South Houston, Harris County, and Pickett Ridge field, Wharton County, were extended. Probably the greatest extension for the month was Glenn H. McCarthy's Longe 1, two miles north of Humble Oil & Refining Company's Langham 1, at Amelia, in Jefferson County. The extension test made gas and distillate from a new sand at 5855 feet. Herton Oil Company's Roane 2 discovered the second producing sand at Jeanerette, in St. Mary Parish. The first sand which was encountered at 6048 feet failed to produce but the 6653-foot sand was found productive. At the end of the month, Superior Oil Producing Company and Woodley Petroleum Company's Bradley 1 discovered a new sand at Bayou Mallet at 6385 feet and when the well was completed it was the first oil producer in this gas field. A new sand was found at Lake Pelto in Terrebonne Parish.

April—Probably the most exciting development for this month was Salt Dome Oil Corporation's Lawrence 2, at Cotton Lake, in Chambers County, which flowed clean 36 gravity pipe line oil at the rate of 16 barrels per hour from the Frio sands at 6647 feet. Later the well started making salt water and was abandoned. Marginulina production was found in Humble Oil & Refining Company's Lord 1, on the east side of the Anahuac field, Chambers County, and it was found that a few wells on this side of the field that were structurally low and carried salt water in the Frio formation usually had oil in the Marginulina formation. First commercial oil production was discovered on the southwest side of the Dickinson field, Galveston County, which is called the Gillock area, when Coast Petroleum Corporation's Maco Stewart A-3 came in making pipe line oil from 8560 feet. A new sand was discovered in the Caillou Island field by The Texas Company's Terrebonne Bay 2, when the well made 35 gravity oil from 6862 feet. Extensions for the month were in the following fields: South Houston, Hastings, Pickett Ridge, New Iberia, Anahuac, Manvel, Jeanerette, Tomball, and Lafitte fields.

May—Smith & McDannald's Mitchell 1 at Lakeview, in Wharton County, discovered a new gas field when it made 2,700,000 cubic feet of gas daily from the Oligocene sands at 3189 feet. This wildcat showed gas several years ago and was shut in, but was finally completed May 1, 1936. Superior Oil Producing Company's Bradley 2 at Bayou Mallet, in Acadia Parish, discovered a new producing sand at 7000 feet. On the Bel prospect, in Allen Parish, Humble Oil & Refining Company's Bel 1 blew out, caught fire and cratered at 7770 feet. The well showed oil, gas and salt water. The last wildcat during this month to show any interest was Mid-Texas Oil Company's Security 1, on the Willis prospect, in Montgomery County. When a drill-stem test was made at 4252 feet it showed a 240-pound pressure and traces of oil. Later it was drilled deeper to the Cockfield but tested salt water. Around 13,000 feet west of the Withers field, in Wharton County, The Texas Company's Pierce Estate B-1 showed for a gas well at 5500 feet and gave indications that the Withers field would be large. Extensions to fields during the month of May were: Turtle Bay, Anahuac, Tomball, South Houston, Amelia, Hastings, Withers and Jeanerette. The first commercial oil production was found at Ace, in Polk County, by Dick Schwab's Kirby Lumber Company 1-A at 4805 feet in the Cockfield formation. Before the discovery, the Ace field was considered only as a gas and distillate area.

June—On June 4, 5 and 14, Sun Oil Company's Hughes 1, Amerada Petroleum Corporation and Stanolind Oil & Gas Company's Dopsalus 1, and Sun Oil Company's Craig 1, discovered new oil fields in the Texas Gulf Coast. On the northwest side of the New Iberia field, Iberia Parish, The Texas Company discovered a new Oligocene producing sand at 7779 feet. At Jeanerette field, St. Mary Parish, Herton Oil Company's Carter 1 found a new sand at 7000 feet. North of the discovery well at St. Martinville field, Continental Oil Company's Fee 1 extended the field 2000 feet north and discovered a new producing sand at 7344 feet. The

Results of Wildcat Drilling in the Louisiana Gulf Coast During First Six Months of 1936

PARISH	Wildcats Drilled	Discoveries
Acadia	2	1
Allen	1	..
Calcasieu	4	..
Cameron	2	..
Evangeline	2	..
Iberia	1	..
Jefferson Davis	1	..
St. Landry	1	..
St. Martin	2	..
St. Tammany	1	..
Terrebonne	1	..
West Feliciana	1	..
Vernon	1	..
Total	20	1

Texas Company's Pierce Estate B-1, 13,000 feet west of the Withers field, Wharton County, was completed as a dry gas well at 5500 feet. Other fields extended were: Amelia, Gillock, Anahuac, Gillis, South Houston, Hastings, Roanoke, Jeanerette, Jennings, Van Vleck, Lafitte. Fields that were defined were: Hardin, Dickinson, and Jeanerette.

NEW CRACKING PLANT

Wichita Falls.—Waggoner Refining Company of Electra will soon start construction of a new cracking unit at its plant two miles west of Electra. The construction of the unit will be supervised by Universal Oil Products of Chicago. The estimated cost is $75,000. The present plant has a daily capacity of 4000 barrels, and while the improvements will not materially increase its runs a larger recovery of gasoline is anticipated.

NEW UNIT FOR SHELL

Cleveland.—Arthur G. McKee & Company of Cleveland, Ohio, has announced receipt of a contract from Shell Petroleum Corporation for the design and construction of a combination crude oil and cracking unit adjoining the latter's refining plant at Houston, Texas. The new unit will have a capacity for running 16,000 barrels of crude oil daily and will require nine to ten months to complete. The estimated cost is $1,500,000.

NATURAL GAS LINE

Pittsburgh.—Penn-York Natural Gas Company will construct a 60-mile natural gas line from Coudersport, Pa., to Batavia and Dunkirk, New York. The line will be 10¾ inches in diameter.

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When you specify J & L Seamless you are sure of uniform high quality because of the unusually rigorous inspection system developed by Jones & Laughlin. Every sixth man in the J & L Seamless Tube Department is engaged in the work of inspection. Five men out of every six make J & L Seamless pipe. The sixth man—your man—checks pipe quality to make sure it measures up to J & L's traditionally high standards. He is one of the big reasons why pipe users throughout the entire petroleum industry depend on J & L for all their drill pipe, casing, tubing and line pipe requirements.

Specify J&L Seamless—and you'll be sure of maximum strength, maximum safety, and maximum service.

Other J & L products for the oil industry include: Steel for derricks and other structural purposes; tin and manufacturing terne plate for containers; tank barges; and bars, shapes, plates, steel piling, concrete reinforcing bars, seamless steel boiler tubes, wire and nails, for maintenance, construction and repairs.

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Modern Steam Rig

OFFERS SUFFICIENT SAVINGS TO MORE THAN COMPENSATE FOR HIGHER INITIAL COST

By DENIS S. SNEIGR

THE steam rotary drilling rig recently assembled by Jack Frazier, Gulf Coast drilling contractor, embodies the latest mechanical improvements and principals throughout. This rig speeds up drilling operations, costs less to maintain and less to operate than the average one. Its initial cost is greater than that of the average, but the savings gained in operation, speed, and maintenance more than compensates for this higher original cost.

Three months were spent in choosing the various units of this assembly, and possibly the most interesting phase is the rotary, which is not operated in the conventional manner through the draw works but is rotated by a separate steam engine. Thus, when the rig is drilling, the draw works stands idle. Under this arrangement the wear and tear on the big engine that operates the draw works and on the draw works itself is eliminated.

However, before going into a further detailed description of this particular unit, it may be well to list the more important pieces of equipment on this rig:

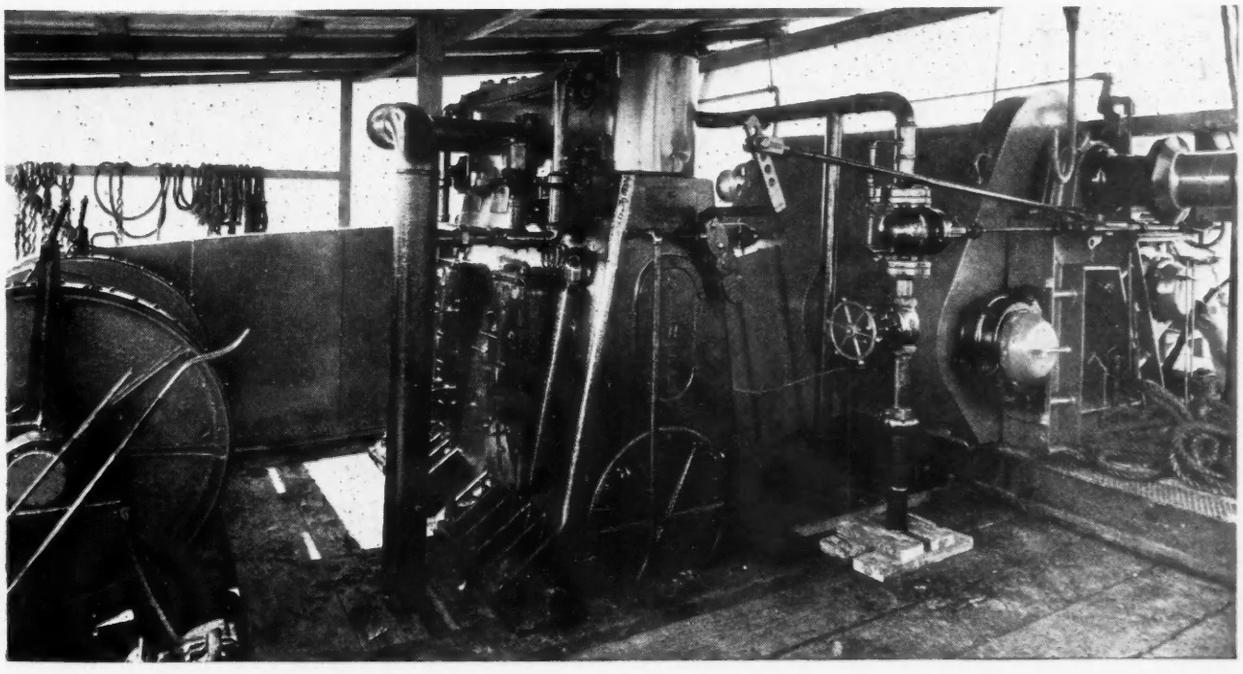
Number — Description

3—125-horsepower, 350-pound working pressure boilers.
1—12 x 6 x 5 x 10-inch boiler feed pump and feedwater heater.
1—10 x 4½ x 10-inch auxiliary boiler feed pump.
2—15 x 7¾ x 20-inch slush pumps.
1—12 x 12-inch vertical twin steam engine.
1—7¾ x 7-inch vertical twin steam engine connected-direct to a 27½-inch oil-bath rotary.
1—9-inch drum shaft unitized hoist.
1—150-ton swivel.
1—80-inch five-sheave traveling block.
1—300-ton six-sheave-in-line crown block.
1—300-ton hook.
2—13⅜-inch blowout preventers.
1—6-inch square kelly joint, 41 feet long.
8500 feet of 4½-inch O.D., 16.60-pound drill pipe, with shrink weld, full-hole tool joints with an I.D. of 3 5/32 inches and 5¾ O.D.

The separate steam engine for driving the rotary is a recent development in drilling methods and has been on the market only about a year and a half. There are two such rigs in the Gulf Coast and about 16 in operation in the entire United States.

Until recently, the rotary always was driven by the hoisting engine through a series of chain drives. The rotary consumes only a small amount of the total power of the hoisting engine, and when an engine is

This 12x12-inch vertical twin steam engine is used by Jack Frazier to operate the draw works on his new modern steam rotary rig.



operated under such conditions it is obviously at an uneconomical load factor. The special engine for driving the rotary is smaller than the hoisting engine and as such operates nearer its total capacity and therefore at a much more favorable load factor.

The more economical operation of the rotary thus arrived at is estimated to save between 20 percent and 25 percent in steam consumption. Besides this important figure, there are several other savings affected by the direct-drive rotary. The engine itself is a 7¾ x 7-inch vertical twin-cylinder steam engine. It is a relatively light weight engine (6100 pounds net) yet it develops ample power for the hardest service. It develops 310 horsepower at 400 revolutions per minute with 300 pounds manifold pressure and 68 percent cut-off.

The direct drive from the engine to the rotary is through a step-up gear train with a 1:1.44 ratio. Under this arrangement, with a gear ratio in the rotary of 3.82:1, the engine is operating at about 256 revolutions per minute when the rotary table is turning at 100 revolutions.

The rotary, gear box, clutch, and steam engine all are mounted on one rigid structural steel base. On this rig, the entire unit was set down between the derrick floor joists. Thus the top of the engine was only about four feet above the derrick floor and the rotary table stood at its normal height.

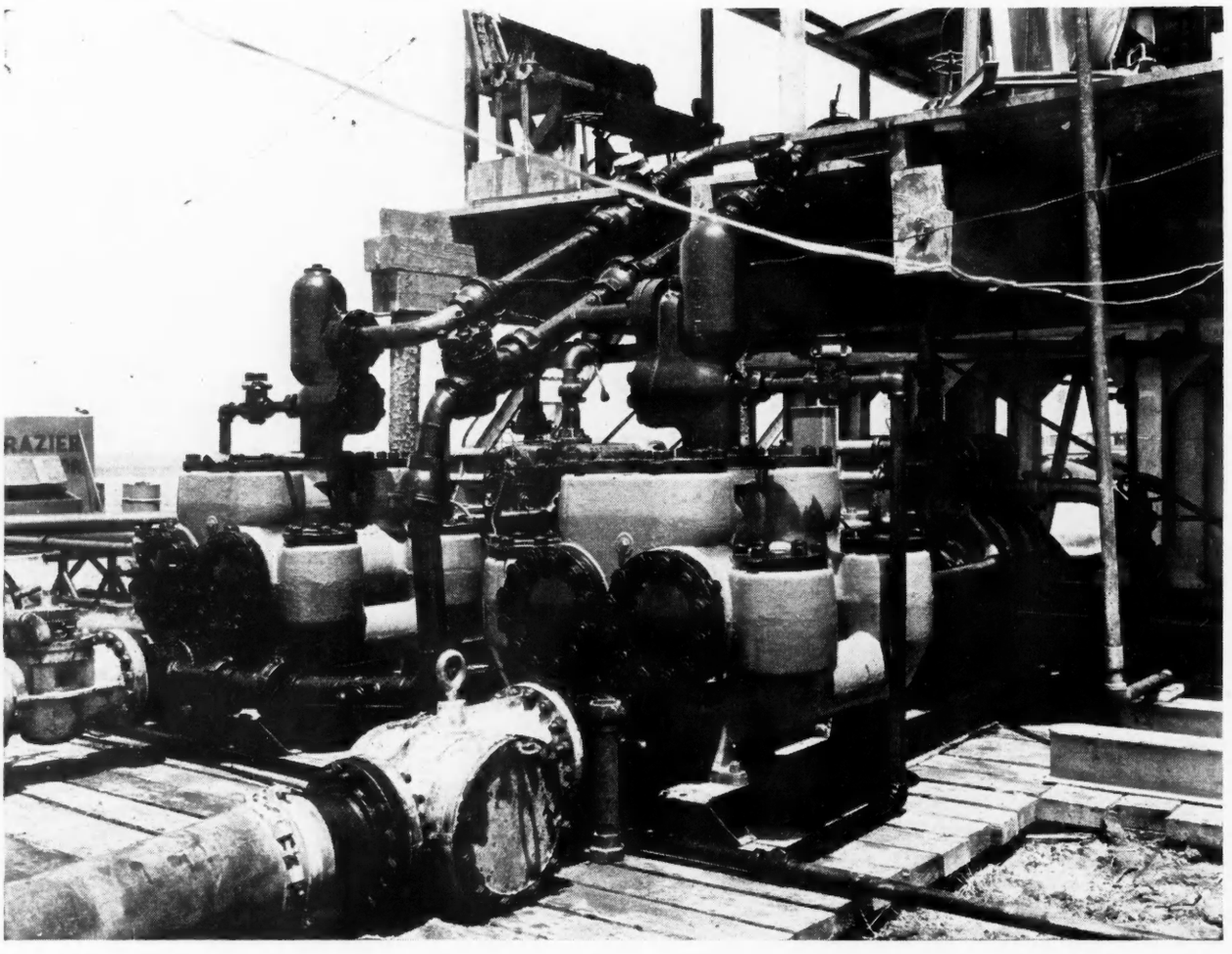
The small engine and the direct drive to the rotary make drilling so quiet that conversation may be carried on in a normal tone of voice on the derrick floor. Under such conditions, the driller could easily detect any unusual noise in the machinery and determine the cause quickly. The spiral bevel pinion and gear in this unit, instead of the conventional spur type gear, contribute materially to the quietness.

Another important advantage in using this drilling unit is the ease and simplicity with which drill pipe can be pulled from the hole. The throttles for the hoisting engine and the drilling unit can be operated by the driller from his customary position. He first breaks the joint with the automatic cathead, and then by slightly opening the throttle of the drilling unit, he backs the pipe out. As soon as the joint is backed out clear, the spring hook lifts the stand of pipe free. In this operation, the driller does not reverse either engine or use any clutches. This system of pulling pipe saves time as well as excessive wear on the machinery.

Another unit on this rig which saves steam is the 12 x 6 x 5 x 10-inch feed pump and feedwater heater. By utilizing the exhaust steam from the slush pumps, the feedwater to the boilers is preheated to a temperature of about 210°F. before it enters the boilers. This preheater is the same type that has been in use on railroad locomotives for years, but only recently the principle was applied to drilling practices.

In this preheater, the cold water is sprayed through a valve into the steam filled heater chamber where the feedwater is heated to a temperature of about

These slush pumps are so hooked up that they may be operated from the derrick floor. Note the two hand-wheels on the rig floor that operate the valves.



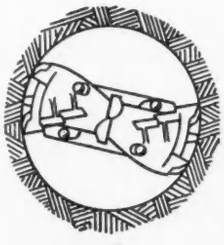
It COSTS LESS to drill FULL GAUGE HOLE faster and straighter with a GLOBE Type B-3 BIT

The continuing popularity of the Globe B-3 Bit—it has been a favorite since 1927—is due to its ability to cut STRAIGHT hole at a low cost per foot in a wide variety of formations. The stepped teeth cut a short core which prevents the bit from "walking" and eliminates "diamond pointing."

FAST-CUTTING TEETH

The angle at which the teeth are set has been worked out through years of experience in cutting many formations. Each tooth meets with a minimum of resistance in breaking up the short core, thus increasing drilling speed.

FULL GUAGE HOLE



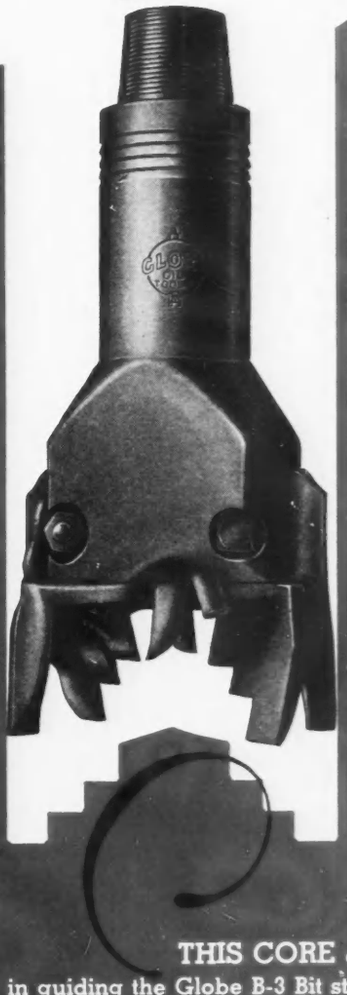
Two lower cutting blades and one upper reaming edge on each side of the B-3 Bit Head provide a total of six reaming edges that continuously contact and round out the wall of the hole. (See sketch.) It is not necessary to ream hole made by the B-3 Bit to get to bottom with a sharp bit or core barrel.

SAFE BIT HEAD

The replaceable molybdenum steel heads are provided with heavy horizontal shoulders which carry all the weight of drilling, while the torque is transmitted through the bearing forces on the vertical bar. The retaining bolts bear no weight or side thrust. These safe heads stand repeated rebuilding, the reinforcing ribs preventing warping of teeth.

STRONG SHANK

The heat treated alloy steel shank is furnished in both a short type (illustrated) and a long design. Four replaceable circulation nipples direct the fluid against the cutting edges of the blades, cleaning them and removing cuttings from the bottom of the hole.



THIS CORE assists in guiding the Globe B-3 Bit straight while it economically cuts the formation. The core is quickly destroyed by the successive rows of "stepped" teeth which attack it from the most advantageous cutting angle.

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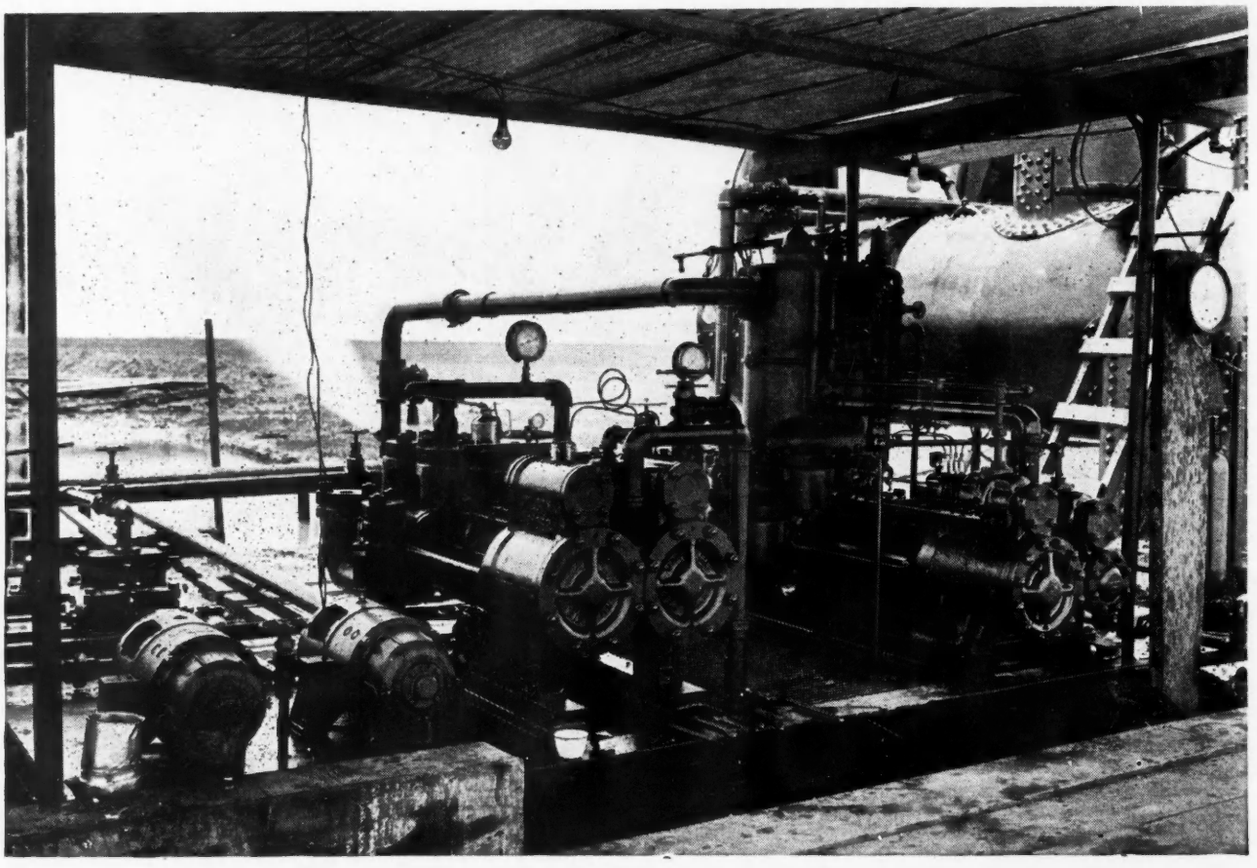


Exhaust steam from the pumps preheats the feedwater in the heater shown to the right. By this means the waste steam is used to reduce the amount of fuel consumed by the boilers.

210°F., or to within 15°F. to 25°F. of the exhaust steam. As the exhaust steam condenses, it adds about 15 percent to the total volume of water in the heater chamber.

Ordinarily this exhaust steam would be wasted, but with this arrangement it is put to work to reduce the amount of fuel consumed by the boilers. With feedwater entering the boilers from the preheater at 210°F., 13 percent less heat is required to convert it into steam at 250 pounds pressure per square inch, than if the feedwater were 55°F. This 13 percent saving in heat used is a worthwhile figure.

Another advantage of preheating the feedwater is the smaller amount of raw water used in the boilers. The steam used in preheating the water adds about 15 percent to the water as it condenses. This 15 percent is in reality distilled water and it is pumped to the boilers along with the feedwater. This partial use of distilled water makes for cleaner boilers since the amount of water used containing precipitates is reduced.

When water is heated to about 200°F., any free oxygen which may be present is liberated. If this free oxygen is passed into the boilers, it will result in pitting of the boilers. On this heater a special vent passes off the free oxygen and thus reduces all the pitting of the boilers from this cause.

The drill pipe used on this rig also is a major factor contributing to the economy and efficiency of the whole set-up. The 4½-inch O.D. drill pipe is externally upset to 5¾ inches, the normal diameter of full-hole tool joints. It is threaded internally to a diameter slightly less than the threads of the full-hole tool joints. The upset end of the pipe then is heated to expand it sufficiently to screw in the tool joint. When cooled, a shrink fit is secured between the pipe and the tool joint. A V-notch weld then is made to join the pipe and the tool joint in one solid piece, eliminating all possibilities of washouts.

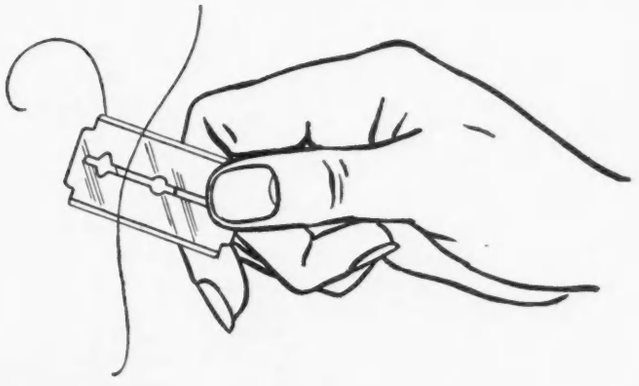
The tool joints have an inside diameter very little smaller than the inside diameter of the drill pipe itself. This insures an almost full hole. This freer circulation reduces the necessary pump pressures and makes for easier and faster drilling.

Another, and possibly more notable, advantage of the full-hole drill pipe is that it permits the use of a larger core barrel. The wire line coring equipment used on this rig was designed especially to meet the requirements of this rig and to balance with the other pieces of equipment. The core barrel, larger than the conventional core barrel, has a diameter large enough to accommodate a 2¼-inch core and it is 16 feet long.

This type of equipment was designed with the idea in mind of coring the prospective producing horizon solid and that is the practice which has been followed on each of the three wells drilled with this rig. The larger diameter of the cores recovered with this equipment is a great improvement over the smaller and conventional core barrel. The value of solid coring through the prospective producing horizon is obvious.

The drill collar assembly designed for this rig also is adopted for the wire line core barrel. In other words, it is not necessary to change the drill collar assembly when coring. The drill collar assembly for making the big hole is 7⅝ inches and 5 9/16 inches for rat holing ahead. With this equipment an average section can be cored in about twice the time that it can be drilled, which means that about 300 feet of

SPLITTING HAIRS



AXELSON stands for extreme care in the selection of production equipment. Axelson recommends pumps and sucker rods best suited to specific pumping requirements. Axelson has always recognized that no two wells are the same, has long taken the lead in developing equipment to meet conditions. In any sensible policy, however, limits are reached,—points are gained beyond which it does not seem wise to go,—then it comes to "Splitting Hairs."

When it becomes necessary to build sucker rods with such a slight variation in price and life as to have occasional heats of supposedly different rods identical, then we believe it's—"Splitting Hairs."

To Axelson it is more than a matter of constantly mounting inventories. It resolves itself into how much and how many,—will be fooled for how long? Axelson wants no part in this "fool the industry program."

Backed by an experience of forty-four years in the manufacture of pumps and sucker rods, Axelson believes that three grades of good rods all designed for specific pumping conditions are enough.

Questionable differences in products of comparative grades have been carried to a point where claims of some of these products are ridiculed by the public. The time has come where the fancied differences in a multiplicity of Sucker Rods are apt to be regarded in the same manner, if they are not already so regarded. Axelson is engaged in manufacturing standardized products of the finest quality that will yield uniform satisfaction in the largest number of installations. We recommend for the Industry's consideration a policy of sucker rod standardization as reflected in these specific types:

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A First Rod *of high quality, moderately priced for use in light and reasonably heavy pumping operations.*

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OIL WELL PUMPS **AXELSON** **SUCKER RODS**

section can be cored in 24 hours. Since a separate engine is used to drive the rotary, no rotary chain is used and this fact is taken advantage of by using the rotary sprocket off the jack shaft to drive the coring reel.

Because of the unusual size, a brief description of the hoisting equipment may be of interest. The unitized hoist has an automatic cathead and an automatic oiling system. The brake rims of the hydromatic brake are water cooled. The 300-ton crown block and the 300-ton travelling block have interchangeable sheaves. The sheaves are 46 inches in diameter with eight-inch pins.

The large diameter of the sheaves has been responsible for a substantial saving in wire line during the drilling of the three wells with this rig. The large diameter reduces the sharpness of the bend in the line as it runs through the sheaves. Sheaves of small diameter make a sharp bend in the line which tends to start breaks. On this rig, 21,000 feet have been drilled with the same line. Of this 21,000 feet, 1200 feet were cored solid. As yet, the line shows no visible wear.

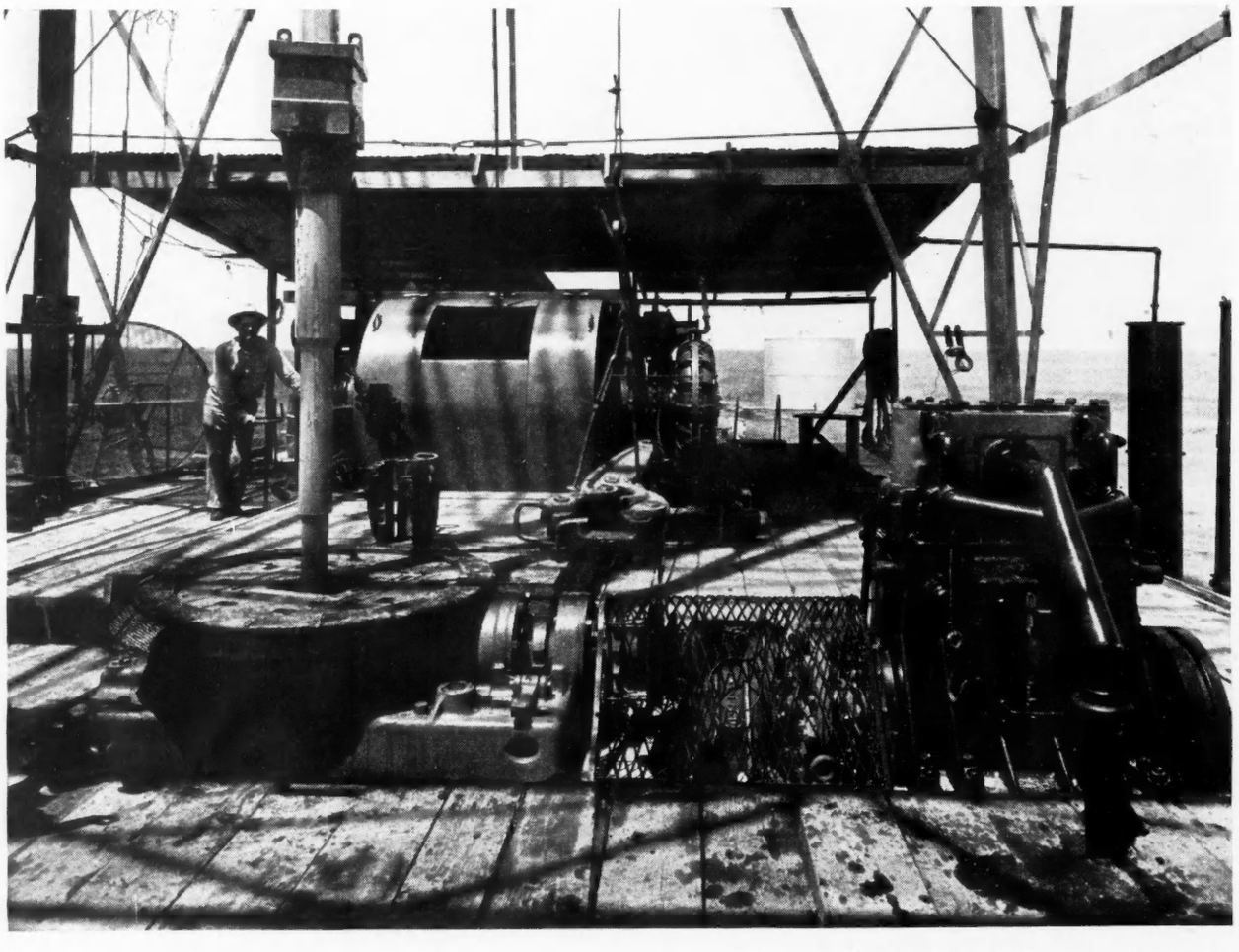
Another remarkable record of performance has been set by the slush pump liners, which are of a specially hardened alloy. These liners in the fluid end of the 20-inch slush pumps have drilled almost 21,000 feet without replacement. Of the pair of slush pumps, one pump drilled all the 21,000 feet of hole with the exception of 300 feet when a gasket blew out and the other pump was cut in. But after almost 21,000 feet of hole, the liners in this pump show no appreciable wear. How much longer these liners will see service remains to be seen.

In the arrangement of the various units of this rig and in the external appearance of the equipment, the influence of the skilled engineer is apparent. Direct piping runs eliminate all unnecessary elbows, the slush pumps with their steam ends are directly under the engine floor so their throttle valves can be operated from the engine floor by means of the shortest valve stem extension, and the mounting of the feedwater units all reflect careful planning.

A roofed platform built at the same height as the derrick floor houses the draw works. Two sets of steel stairs lead up to this platform and a third set of stairs is on the side of the derrick where the slush pumps and the slush pits are located. The draw works is enclosed completely. Not a chain or sprocket is visible. The only moving part exposed on the derrick floor is the rotary table itself, and even this is partially enclosed by a guard which covers the rim and part of the top.

From the side of the derrick approached by the two sets of stairs, a board walk leads to the boilers and the preheater. Along one side of this walk are the steam lines leading to the slush pumps, the draw works engine, and the rotary engine. A corrugated iron roof covers the feedwater heater.

The appearance of the entire set-up is one of economy and efficiency, reflecting the influence of modern engineering practices.

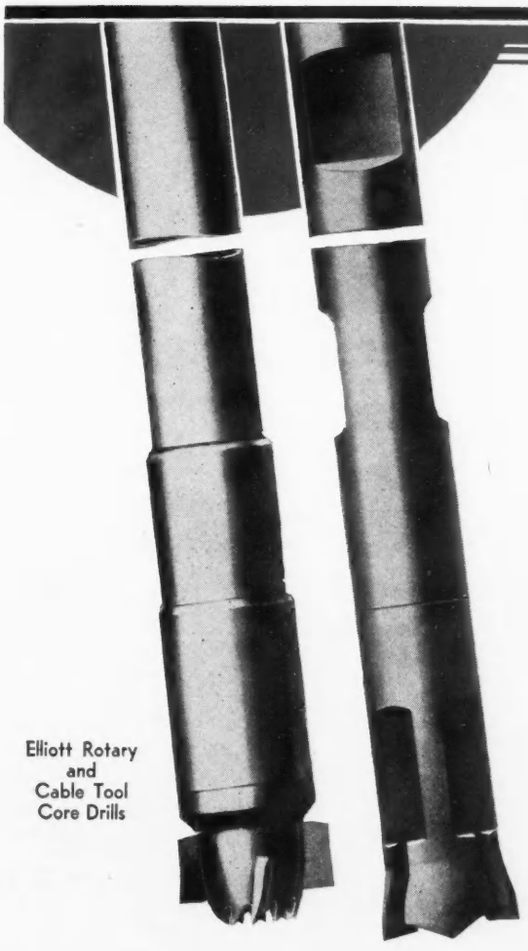


The small vertical steam engine is direct connected to the enclosed rotary table. Note how all the equipment on the rig floor has been equipped with guards to increase safety.

1921 1936

Their Record SPEAKS FOR ITSELF

»»» and what a story it tells



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Being the original core drill used for coring oil wells on a commercial basis, Elliott has borne the brunt of all that has followed in this field of endeavor. For more than fifteen years Elliott has conducted a core drilling service in direct competition on a price, service and performance basis with every other device developed for this purpose. It has been necessary therefore, to maintain the efficiency of Elliott coring equipment at a point that would enable maximum footage of hole and recovery of good cores at minimum cost of operation and maintenance. This in turn has necessitated continuous development and improvement in perfect step with the foremost progress in oil field practice . . . the design, manufacture and maintenance of the best coring equipment possible from every competitive angle.

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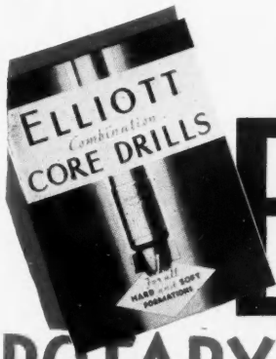
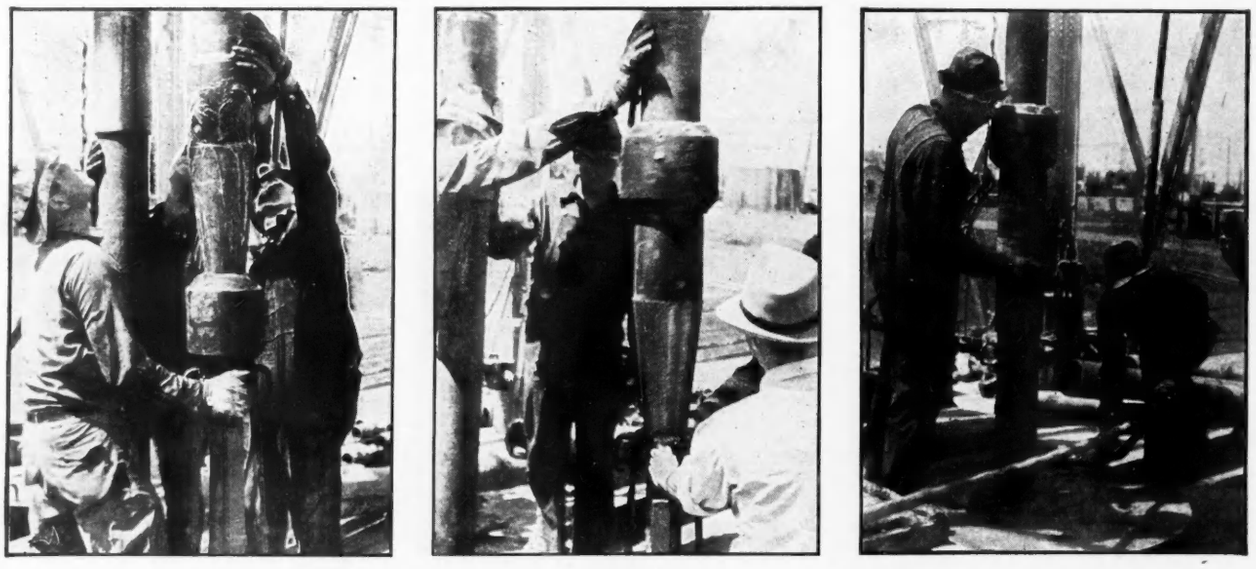


Write for Bulletin No. 36-R, illustrating and describing the improved Elliott Combination Core Drill for all formations.

ELLIOTT

ROTARY and CABLE TOOL CORE DRILLS



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* This is average cost of protecting casing in the Rodessa field. In Oklahoma City the cost could be approximately $280.00. This cost is greatly reduced in proportion to the number of wells later drilled with the same protected drill pipe.

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Use of Gel-Type Clay In Cable Tool Drilling

By FLOYD L. SWINDELL

GEL-TYPE clay has been used successfully for a number of years in rotary drilling operations, and more recently has been employed for similar work in the drilling of cable tool tests. This latter field of application is wide, and one that heretofore has been given little attention. The following discussion will be devoted to some of the problems of cable tool drilling and the possible solution of these problems by the use of gel-type clay.

Drilling Problems

In many areas where exceedingly hard thick beds are encountered relatively near the surface, the intervening beds may consist of soft caving shales or low pressure water sands which deliver enough water that it becomes necessary to set or carry a string of casing. In some areas these shales contain thin streaks of limestone or other hard materials which make it impossible to follow the hole closely with casing. This involves underreaming, which may add considerably to the expense of drilling. Many of the tests in shallow areas are drilled with rigs not equipped with calf wheels so that it is impossible to work the pipe to keep it free.

In some shallow areas, notably in northeastern Oklahoma and southeastern Kansas, fresh water sands that furnish the domestic supply are closely related to salt water sands. Protection of the fresh water is at all times desirable and in most states is required by law. That these laws are not adequately enforced relieve some operators of the precaution otherwise necessary. Under earlier practices, and in many instances today, this protection is obtained only by the setting of a string of casing. Even when this is done, unless some material having the capacity to seal off the sands is used, water may and usually does migrate from one formation to another and from one well to another. Sealing off of such low pressure water sands with gel-type materials will be discussed in a subsequent paragraph.

In the Texas Panhandle where drilling problems are numerous, approximately 1000 feet of unconsolidated or loosely consolidated sands and shales and about 1100 feet of salt rock must be drilled before the gas zone is encountered. Most of the sand formation is water bearing and is so loose that it caves and runs into the hole almost the same as quick-sand. Often this caving is so serious that casing cannot be recovered under ordinary practices. The geologic section encountered and the casing program followed in one of these pools is illustrated by Figure 1. In this area the use of gel-type clay has become a general practice. A cellar 12 feet deep usually is dug. The concrete sides are sloped so that at the bottom of the cellar the width is only slightly greater than the outside diameter of the surface pipe. The ordinary practice, as shown in Figure 1, is to set 20 feet of 20-inch surface casing. The shoulder for this string is made by reducing the hole to 18 inches, which diameter is maintained to about 300 feet where the 15½-inch casing is set on formation without cement. Gel-type clay is thoroughly mixed with water, usually 5 to 7 percent by weight, and gravitated down the sides of the sloping cellar to fill the annular space between the surface and 15½-inch strings. During this operation the inner string is filled with water to equalize the external pressure.

From 300 to 600 or 650 feet a 15¼-inch bit is used. Since the formations are soft and will not stand up in open hole a 12½-inch string is swung 12 to 15 feet off bottom and carried until the casing point is reached. Gel-type colloidal mud then is gravitated between this and the 15½-inch string, care being exercised to fully equalize external pressure by the use of water. From the 12½-inch shoulder down to approximately 1000 feet the hole is reduced to 12¼-inches and a string of 10¾-inch casing carried. Gel-type colloidal mud is graviated behind this string but the casing is not seated until samples of the mud have been obtained in the bailer, thereby assuring the operator that the annular space is completely filled. The hole is then reduced to 10 inches and carried at that diameter through the cavernous limestone and salt beds. While drilling the salt a half-bailer of water is carried in the hole and the casing kept as close to the bit as possible.

It is the usual practice to run 8⅝-inch casing to a point below which no caves are expected, place mud behind this string and drill to about 2575 feet. The hole is then underreamed and the string set down below the salt beds. From approximately 2575 to 3100 feet an 8¼-inch bit is used and 7-inch casing cemented with about 30 sacks at about 3100 feet. When the annular space has been filled with gel-type mud and sufficient time has elapsed to permit the cement to set, the hole is drilled to approximately 3250 feet and completed in the limestone and dolomite pay. Figure 1 shows the type of material between and behind each of the strings at the time the total depth is reached.

When the hole has been drilled to total depth the first, second and third strings are pulled leaving the annular space filled with gel-type mud, which seals off the water-bearing horizons. This casing program represents an investment of approximately $4600. One of the major considerations of the use of this mud behind the drilling strings is the comparative ease with which these strings can be recovered. Table 1 presents the casing program in four wells. Two of these were drilled under the practice just

described and the other two in the more usual manner. Where no special attention was given the type of mud or fluid behind the casing it will be noted that a considerable amount of the pipe could not be recovered and that pulling time as between the two practices was in wide variance.

Where the cone or v-type cellars are used in the Texas Panhandle it is general practice to use 17½ pounds of the gel-type material to a barrel of water, thus producing a 5 percent mixture that will flow freely into the annular space but which retains sufficient wall-plastering capacity that it will attain the desired result. Mixtures range upward from 5 to about 30 percent.

Under ordinary circumstances the mixtures range from 5 to 7 percent. Excessive caving or water sands of large capacity and higher pressures may require a stiffer mixture. When these conditions have been encountered a number of practices have been followed. One which seems to have proved uniformly successful is the use of a mixture of 12 pounds of gel-type clay to 4 gallons of water or about 28 percent. This yields a very stiff mass which can be handled easily with the hands or a shovel. With the first evidence of caving or of water in excess of the

TABLE 1

No Material Behind Pipe			Gel-Type Mud Behind Pipe		
Size Casing Inch	Amount Run Feet	Unrecovered Feet	Size Casing Inch	Amount Run Feet	Unrecovered Feet
WELL NO. 1			**WELL NO. 3**		
20	141	102	20	121	None
15½	367	286	15½	280	None
12½	552	None	12½	813	None
10	1074	None	10	1287	None
Pulling time—57 hours			Pulling time—24 hours		
WELL NO. 2			**WELL NO. 4**		
15½	380	380	15½	285	None
12½	729	250	12½	537	None
10	911	296	10	1243	None
Pulling time—240 hours			Pulling time—36 hours		

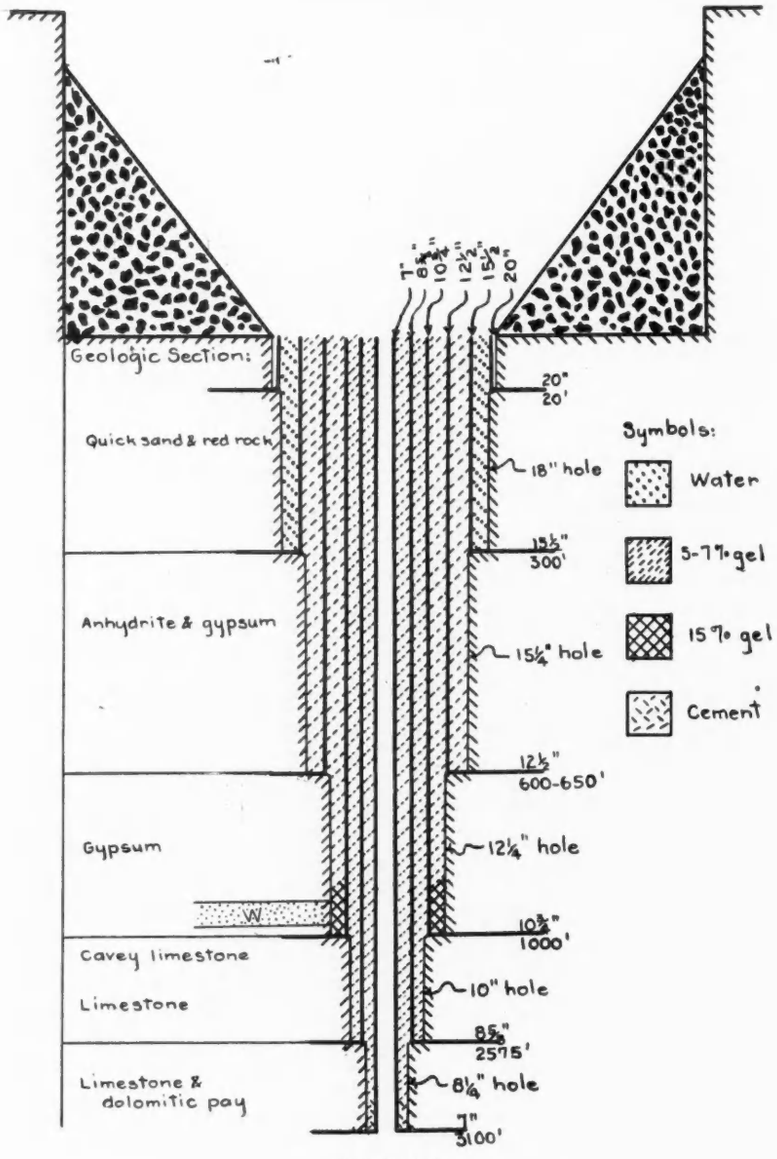

FIGURE 1

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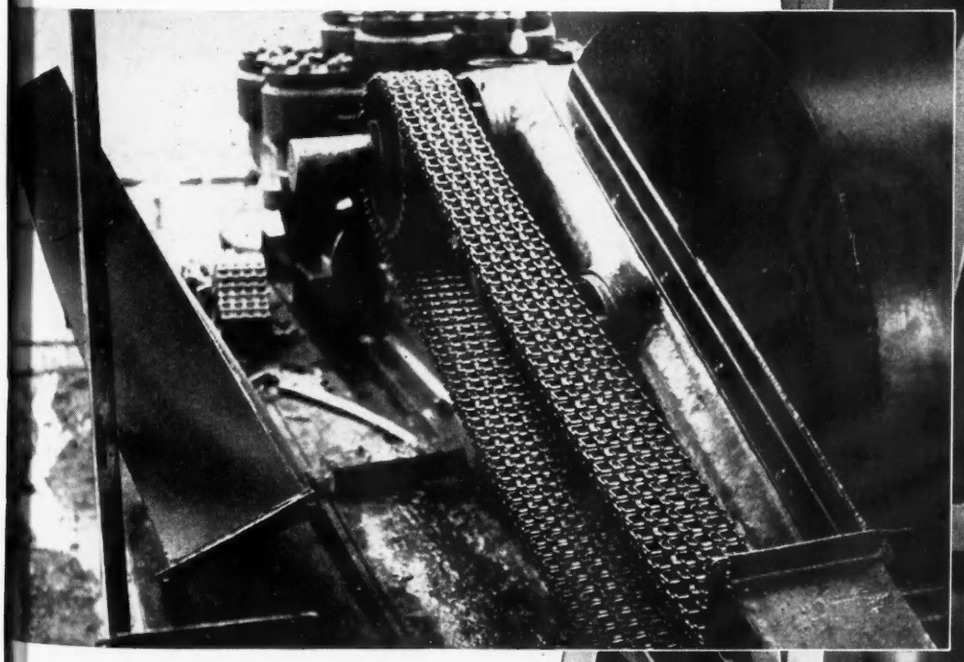

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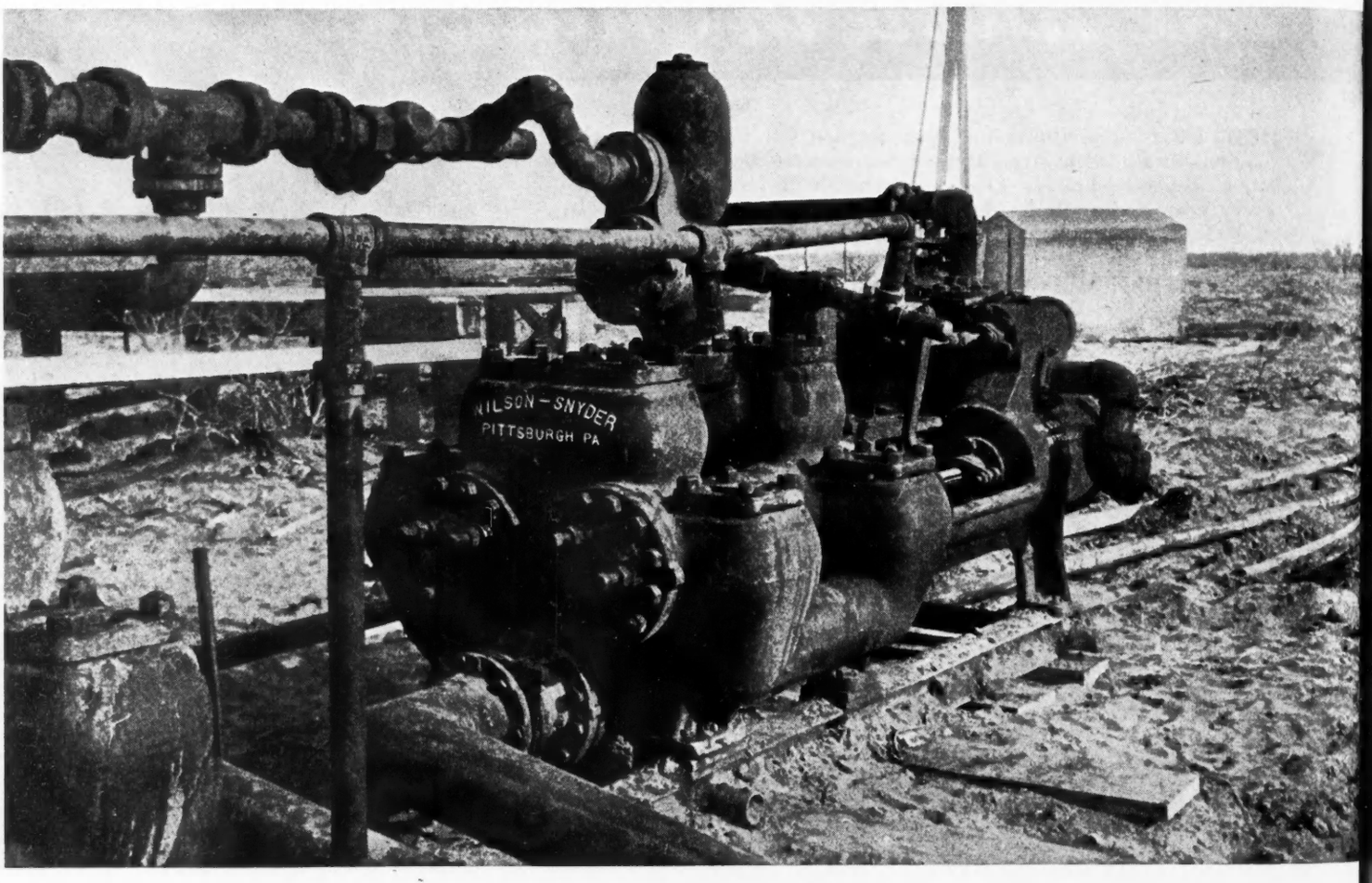

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amount needed for drilling the water courses in the bit are filled with this stiff mud, a practice known as loading the bit. Before the bit is returned to the hole balls of mud are formed with the hands and dropped into the hole. These are forced to bottom with the bit and the subsequent churning action of the tools aided by the whipping of the drilling line plasters the walls of the hole and prevents the formations from being exposed to the drilling water. It may be necessary to perform this operation several times before shutting off a bad cave. Not more than one screw of hole should be made before adding more of the heavy mixture where caving persists.

Where caving is not bad or when drilling through water sands of low capacity it is possible to carry several hundred feet of open hole by the method just described. As a precaution against possible caving many operators are following the practice of using special mud continuously. With the casing unseated enough of the mixture is introduced into the hole to permit about 2½ bailers to pass around the casing shoe into the hole and up into the pipe. When drilling is resumed and another screw of hole made the bailer is run and the necessary amount of mud added. A mixture of not over 5 percent usually is required.

Another Method

Another method of fighting caving hole and water sands, and one which seems to have been equally as effective, is the placing of dry gel-type clay in a burlap bag and lowering into the hole on the bottom of the bit. If the hole is dry it is the usual practice to add about 2 bailers of water before going in with the material. Under this practice mixing takes place on the bottom of the hole and at the point where the cave or water sand is being attacked. Some operators believe this gives greater assurance that the plastering action will take place where it is needed. As in the case of placing mud in the water courses of the bit and dropping mud balls into the hole, the operation described in this paragraph should be repeated after each screw of hole is made until water sands have been completely sealed off or until caves have been conquered. In cases where a considerable amount of water is being carried in the hole care should be exercised in running into the hole. While bailing between screws the driller should determine as carefully as possible the top of the column of water. When this point is approached with the loaded tools the running-in speed should be greatly diminished so that the material in the water courses or in the burlap bag will not be dislodged when the surface of the water is struck. This same precaution should be exercised while bailing in hole that previously has been plastered with mud since striking of the water surface at a rapid rate of speed may cause the bailer and the sand line to damage the mud sheath. When the burlap bag method is used it is general practice to place about 15 pounds of the dry gel-type clay in the bag each time. The amount of course can be varied depending upon conditions.

In Oklahoma and Kansas

Conditions in the northern Mid-Continent differ from those described for the Texas Panhandle and the methods described earlier probably should be modified. In Oklahoma and Kansas the formations generally are more consolidated and stand up better in drilling. Except perhaps in a few areas it would not be necessary to so closely follow the bit with casing in Oklahoma and Kansas, where the use of gel-type clay is rapidly gaining popularity.

In a recent test drilled in Montgomery County, southeastern Kansas, a fresh-water sand was encountered at 60 to 70 feet. Immediately below and separated by only a few feet of shale a salt-water sand was encountered. Since it was believed that no other water sands would be encountered below 90 feet the operators drilled to 102 feet, reduced the hole and set 8⅝-inch casing. The annular space between this string and the walls of the hole was filled with gel-type colloidal mud, the casing was unseated to insure complete filling of the space and then reseated before drilling was resumed. As drilling progressed mud was added to the annular space to take the place of any material which might have entered the formations in the sealing process. Observations were made from time to time of the water being pumped from a well 198 feet away. To date no evidence of contamination has shown up.

This test encountered top of the Oswego or Fort Scott limestone at 748 feet and in the lower part of the section had a flow of gas accompanied by about 2½ bailers of water per hour. When a depth of 917 feet had been reached a black brittle shale from the lower part of the Oswego section started caving. At the time the owners of the test could not be immediately located and it was decided to shut down for orders. It was the opinion of the drillers that a string of 6⅝-inch casing should be run at this point and later underreamed and set down near the expected top of the Bartlesville sand at approximately 1050 feet. Two days later 500 to 700 feet of Oswego lime water had accumulated in the hole and the black shale was caving badly. Since the bottom of the hole was more than 100 feet below the point of the cave the methods heretofore described did not seem applicable. The first move was to bail the water down. When the bottom of the hole was reached it was found that only 14 feet of cavings had accumulated.

A 20 percent gel-type mixture was made up and the tools run to a point opposite the black shale bed which had been caving. This mud was then run into the hole by gravity and allowed to run down the walls of the hole. When it was believed sufficient time had elapsed to permit the mud to have reached the tools a slow drilling motion was started. This was with the tools hanging approximately 100 feet off bottom. Drilling was then resumed. At 924 feet the caving had ceased and no further trouble was experienced. This success probably should not be credited entirely to the use of mud since water standing above the caving bed probably was exaggerating the condition. When this water was bailed down it evidently had some retarding effect upon the cave. However, the operators were able to carry open hole to 1017 feet, at which point the hole was reduced and 6⅝-inch casing run. After this string was set in shale with hard lime streaks the annular space was filled with mud. More than two months of pumping has elapsed and no water has shown with the oil, indicating a complete shut off of the upper water.

Other uses have been made of gel-type clay and undoubtedly still other uses will be developed in connection with cable tool drilling. Those enumerated in the preceding paragraphs have proved the economy of such a practice both in the recovery of drilling strings after completion and the carrying of open hole until depths desired for casing points can be reached.

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Cunningham Field

By BRAD MILLS, Associate Editor

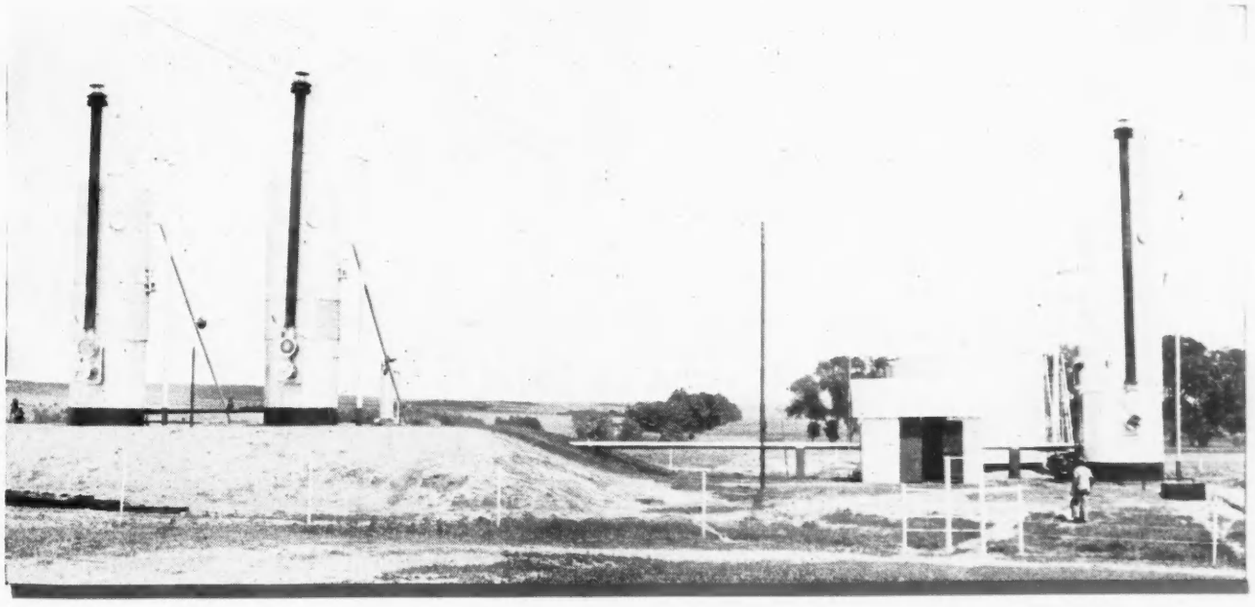
THE development and operation of the Cunningham pool, Kingman and Pratt counties, Kansas, reflect the value of a planned program that utilizes the natural advantages within a producing area. Repressuring work, special treatment of the oil, disposal of salt water, removal of gasoline from the gas, disposal of the residue gas, and maintenance of surface equipment feature Skelly Oil Company's operations in a field that has been completely developed by one company.

The Cunningham pool was located first by core drill work, and after some development was checked by geophysical surveys. The results of the latter work were not satisfactory, and it was evident that drilling would be the most logical method of determining structural trends. Development in the Lansing lime showed much gas in various parts of the producing zone, being above, in and below the pay zone, with no regularity. Apparently the pool is on a sharp uplift very favorable to gas production. This was also indicated by the fact that large gas production was obtained in the Viola, Simpson and Siliceous lime.

The Cunningham pool and one other are the only fields in Kansas producing large quantities of gas from the Siliceous lime, which usually carries little gas. An interesting fact is that a deep test on the Leisman lease developed a flow of about 20 barrels of oil per hour, with some water about 100 feet in the Siliceous lime, apparently an edge well in that zone. This probably is the first pay zone found at this penetration in the Siliceous lime in Kansas. The chemical suitable for treating oil from the Siliceous lime zone was found suitable for treating Oklahoma City Siliceous lime production.

Due to the amount of gas developed in the various zones, a casinghead plant was erected and the residue gas marketed through gas pipe line connections. Gas production is regulated by tubing all wells and by chokes, and the amount produced daily is that quantity needed for gas pipe line demands and field operations. Compressors have been installed to use any surplus gas for repressuring purposes, and arrangements are being made through drilling shallow gas wells to around 2150 feet to insure other sources of gas for pressure maintenance work. Use of gas from shallow zones will insure utilization of an extra force for the production of oil in a zone not acted upon by a water drive.

Development of the Lansing lime has been carried along by Skelly Oil Company to obtain its gas and oil production, and at the same time define more accurately the zones of the field where deeper production will be probable. An analysis of structural conditions based on Lansing lime development undoubtedly will do much to elim-



The treating plant for removing water and salt from the oil is the first of its type ever used.

inate many dry holes that might have been drilled by chance.

The recent discovery of oil in the Viola lime several miles to the northeast by Shell Petroleum Corporation has again emphasized the reasonable hope that the lower zone may be the main source of oil production in this area. Plans are underway to test that zone at the proper contours in the near future.

Oil production from the Lansing lime already has been about 1,113,250 barrels, a very creditable showing since the discovery well, Miles 1, was completed early in 1931 with a flow of 325 barrels of oil and 1,000,000 cubic feet of gas from 3441 feet. This well subsequently was deepened to 3505 feet and plugged back to 3464 feet. The field never has been a sensational producer in the Lansing lime, but the steady performance of wells under restraint has been satisfactory.

Thirty-nine wells have been drilled in the field, of which 36 have produced oil or gas, or both, and three were dry holes, among which is included an adjacent wildcat well drilled by other interests in 1923 and abandoned at 3600 feet, but this test should not be associated with more recent development.

Enough drilling has been done to define edge conditions and the producing trend in the first productive zone has been fairly well established. Drilling indicates a closure of 350 feet, which is far above the average and considered an important asset. About 1500 acres have been proved productive, and only recently the field was extended into Pratt County, following a gradual westward trend.

Several Drilling Problems

Some difficulty has been experienced in drilling through various formations above 3000 feet, but recent changes in drilling practices have reduced the trouble to a minimum. Rotary drilling equipment is used until the producing formation is reached, and cable tools are substituted for drilling through the lime formation.

Twistoffs were very common during the early and intermediate stages of development, the salt encountered from 900 to 1300 feet having presented a real drilling problem. The salt broke down the walling action of the mud, and large cavities were created by the sluicing action. The drill pipe tended to bend into these cavities, and twistoffs were numerous as the result of the increased stress. Application of weight control checked this trouble, and special rock bits also seemed to have given help.

Loss of circulation around 2700 feet was a common occurrence, and the average drilling time reflects the trouble from this source. There was little natural mud, and the salt zone quickly reduced the colloidal properties of the artificial mud, with the result that its cost was prohibitive for this type of development. It was not unusual to lose from 4000 to 5000 barrels of water daily during the period of greatest difficulty. Cottonseed hulls and other materials were used successfully in this effort to drill through the troublesome lime formation.

Most of the producing wells have been completed with 7-inch O.D. pipe cemented on top of the producing horizon, which is encountered from 3360 to 3478 feet, depending upon the elevation and location on structure. The standard quantity of cement has been 500 sacks per well for several years. The cement serves a two-fold purpose, reinforcing the oil string of casing and protecting a productive gas zone between 1600 and 2250 feet. The surface elevation ranges from 1662 to 1774 feet above sea level.

The wells usually are drilled about 40 feet into the lime below the shutoff, and completed. The average initial production has been about 325 barrels daily, but the initial range of various wells runs from 65 barrels from an edge well to 1165 barrels from an inside producer. These wells have been produced through tubing chokes. Gas production accompanying the oil has ranged from 69,000 to 7,000,000 cubic feet, and the average gas/oil ratio has not been high for a field of this type of closure.

A deep test, Leisman 1, was drilled to 4195 feet and produced gas at the rate of 27,000,000 cubic feet daily. The field is believed to have unusual possibilities in a number of formations, development of the Lansing lime probably being the first of a number of important zones that will prove productive. The average decline from the peak production has been about 60 percent for each well producing from the Lansing lime.

Simple surface hook-ups are used at injection wells. The gas is injected at only a slightly higher pressure than is shown by the producing formation.

The oil is 36 gravity and has good refining characteristics. The gas yields a good grade of natural gasoline and the residue gas is a desirable product.

Elaborate surface equipment is not used at producing wells, but the hookups are neat and very well maintained. High-pressure connections are not required. All producing wells were completed with two-inch tubing.

All producing wells are flowing naturally, and obviously no pumping or artificial lift problems have been encountered. Acid treatment resulted in a 300 percent production increase in a few wells, but it also sharply increased the gas/oil ratio. Use of acid

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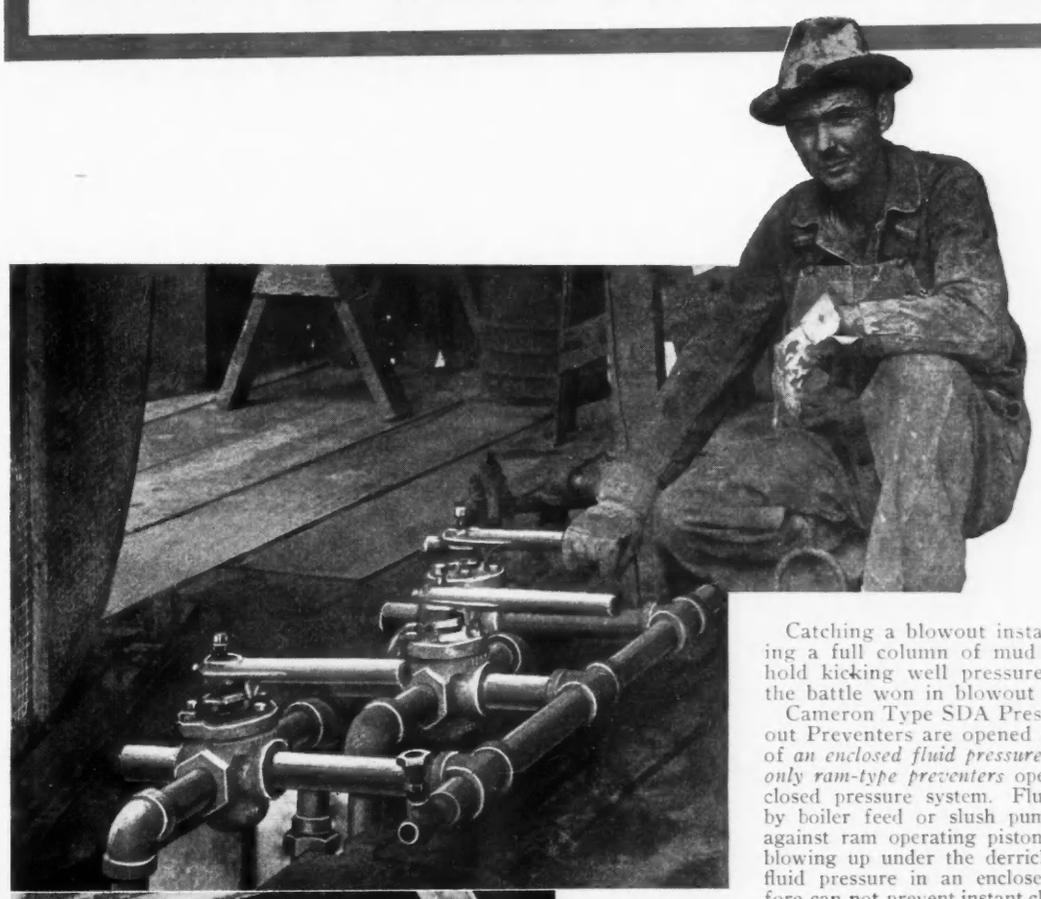

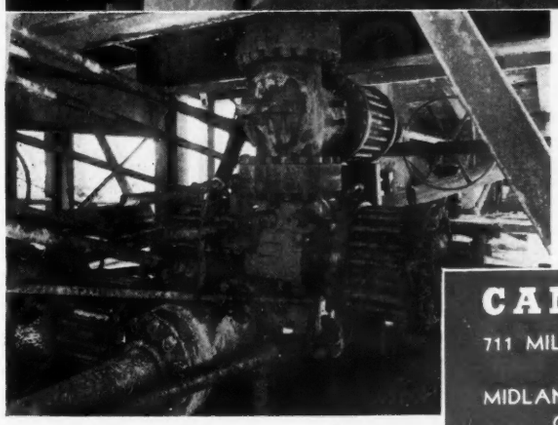

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may prove more beneficial when the field declines to a point that eliminates the gas/oil ratio as a factor to be considered.

Pressure Being Maintained

Skelly Oil Company has been able to arrest the pressure decline and has steadied the output of the field through repressuring work. More than 2,000,000 cubic feet of gas daily is being returned to the formation through two injection wells. Gas for repressuring is being obtained from shallow wells that showed no oil, and from surplus residue gas from the gasoline plant.

The original bottom-hole pressure was about 1000 pounds, but it has gradually declined to about 500 pounds. The gas is being injected into two wells at a pressure only slightly higher than the formation pressure. Recently a 6,500,000 cubic foot gas well was completed at 2150 feet with a rock pressure of 650 pounds. This producer furnishes much of the gas for repressuring operations at the required injection pressure.

If the lower zones prove productive, gas from such lower producing formations will be used to repressure the Lansing lime above, since the latter does not have a water drive. It was largely because of the absence of a water drive that the Lansing lime showed a steady pressure decline prior to the inauguration of the present repressuring program. The bottom-hole pressures in such a formation are very responsive to injection of gas, however, and it may not be difficult to at least maintain the present formation pressure and thereby insure a long flowing life for the average well.

The chances for a large production of gas from the lower formations are good, as evidenced by findings in Leisman 1. In this well the top of the Viola lime was found at 3922 feet, top of the Simpson at 3990 feet, and top of the Siliceous lime at 4033 feet. All these horizons are within easy striking distance below the Lansing lime, which is found at about 3400 feet.

Gas from the Siliceous lime contains hydrogen sulfide, but formations above this zone produce only sweet gas. The nature of Siliceous lime gas may have a bearing on its use in the future as a repressuring agent.

The company is using one of the most elaborate treating plants ever developed for handling oil as it comes from the well. Cunningham crude oil shows an average cut of about six percent salt water. Some salt becomes entrained in the oil, and the removal of this salt is considered important. In addition to removing the straight salt water, a desalter has been developed for removing the free salt that breaks out of solution and entrains itself in the oil.

In the treating process, the oil goes to a central, 1500-barrel tank that is located on a hill above the plant. From this tank the oil passes through a preliminary treating room that is equipped with a five-horsepower electric motor, a small centrifugal pump, and a series of eight staggered orifices in a four-inch line. The small pump creates enough pressure in the line to force the oil through the main treating plant, while the staggered orifices help to break up the mixture.

After reaching the treating plant, the oil passes through a "boot," or small heated vertical pipe section, before entering the first of two treating tanks. The temperature maintained in the first treating tank is 140°F. The flow continues to the second treating tank, in which a temperature of 150°F. is maintained. A small gas line is used in the bottom of both treating tanks to insure agitation. After leaving the second treating tank, the oil flows to the desalter, a large vertical tube section in which is maintained a temperature of 150°F. Details of the construction of the desalter have not been made public, but it is known that the arrangement prepares the oil for refinery use to a degree not attained by ordinary treating plants. The oil goes directly to storage from the desalter.

Salt water disposal has not been a serious problem. The small amount produced each day is pumped into a salt water sand through shallow wells. The ease with which this sand takes the salt water eliminates the necessity for high pressure pumping equipment.

The Cunningham field is served by a six-inch pipe line to Burrton, a distance of 60 miles. The field potential is 4700 barrels daily, while the allowable is 1250 barrels daily. Daily gas production averages 2,000,000 cubic feet when oil production is normal.

The natural gasoline plant in the field has helped to realize all available revenue, in addition to preventing waste that otherwise might take place. The isolation of the field has required an extensive and expensive program that virtually makes the field independent of other producing areas. Skelly Oil Company has attempted to utilize all natural advantages, and in addition has added outside features that make the field self-sustaining.

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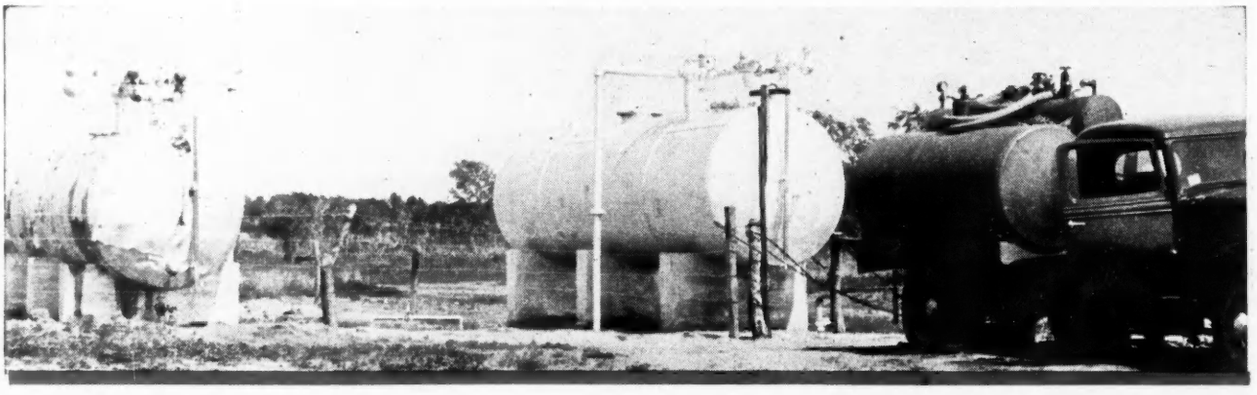

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Exhaust Pipe Length

AS A FACTOR IN TWO-CYLE

Engine Economy

By JOSEPH LISTON, Assistant Professor,
School of Mechanical Engineering,
The University of Oklahoma,
Norman, Oklahoma.

PART 2

IN Part 1 of this article[1] the effect of exhaust line length on the economy of operation of a two stroke cycle Diesel was discussed. It was observed from the results of the tests on an 80-horsepower Diesel unit that an incorrect length of exhaust pipe causes some loss of power, much more exhaust smoke, and a considerable increase in the fuel consumption.

The methods employes in measuring the fuel and

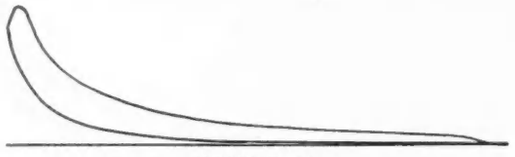
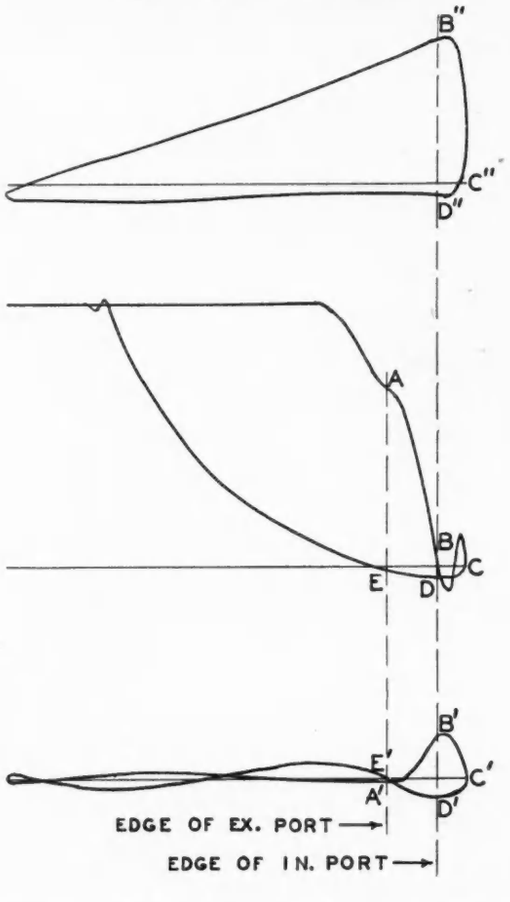


FIGURE 11
A typical full load indicator card from the test engine.

power output of the engine used in these tests are not altogether applicable to the field testing of commercial installations. A carefully designed Prony brake was used to absorb the power, and precision scales were used in weighing the fuel. As neither of these laboratory pieces are generally available for commercial testing, it was thought advisable to attempt a correlation of actual performance results with indicator cards taken during the tests.

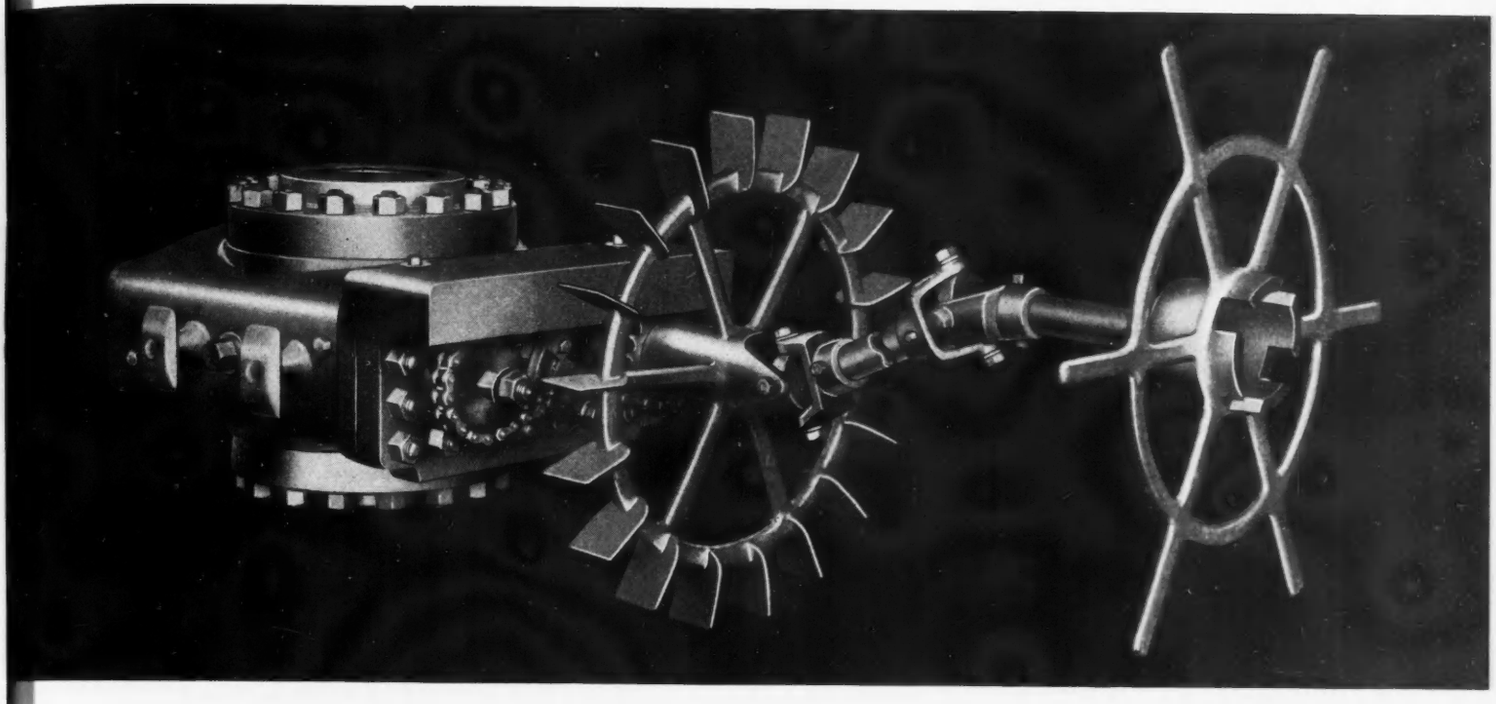
Three indicators were used for the cards although by shifting positions and springs, one might be made to serve. The indicator on the cylinder head connects with the combustion chamber. Normally it was used in taking regular cards, Figure 11, but for the special tests, a light spring was used to magnify the "toe" of the card so that pressure variations in the cylinder during the time when the intake and exhaust ports were uncovered could be studied. When using a light spring on the power cylinder indicator, the upper part of the card is cut off by the indicator piston reaching the upper end of its travel. The middle diagram in Figure 12 shows a light spring power card taken during the tests. In addition, out of phase cards were taken on the power cylinder. For these cards, a nor-

FIGURE 12
Scavenging, light spring power, and exhaust line indicator cards arranged to show the effect of pressure variations. These cards are for the speed at which best economy was had.



[1] The Oil Weekly, August 3, 1936.

REMOTE CONTROL···



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A Hand Wheel for opening and closing the Gates for manual operation is connected to the Gate operating screw by means of universal joints and lazy rod consisting of pipe or tubing. The Hand Wheel is conveniently located outside of the derrick for remote control.

Illustration shows a combination of both Pelton Wheel and Hand Wheel control generally used in fields where dangerous blowouts are likely to occur.

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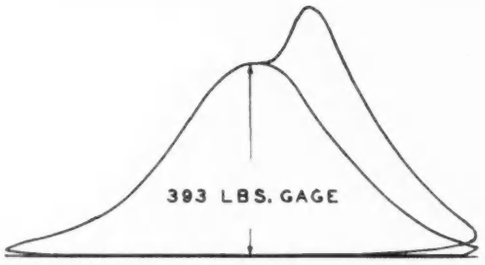


FIGURE 13

A 90 degree out of phase card illustrating the method of finding the compression pressure.

mal spring was used, and their principal use during these tests was in measuring the compression pressure, Figure 13.

An indicator equipped with a 40-pound spring and a 4 to 1 piston[2] was used on the scavenging cylinder. The air cards obtained with this indicator were used in determining the power to compress the scavenging charge and in calculating the air consumption of the engine. The top diagram in Figure 12 is a typical air card taken during the tests.

The pressure fluctuations in the exhaust line were taken with an indicator similar to the one used on the scavenging cylinder. The bottom diagram in Figure 12 shows a typical exhaust line card taken during the tests.

Before attempting a correlation of the shape of the indicator cards with the economy of operation of the engine, it is believed advisable to note briefly the relation between the three typical cards shown in Figure 12. In the light spring power card, A represents the cylinder pressure at the end of the expansion or power stroke just as the edge of the exhaust port is reached by the edge of the engine piston. While the piston moves from this point to the edge of the inlet port, the pressure in the cylinder falls from A to B due to the escape of burned charge to the exhaust. This outrush of gas into the exhaust pipe causes a build up in pressure in the pipe from A′ to B′. The inertia of the outrushing gas causes pressure fluctuations in the cylinder between B and C, and during this time, the pressure in the exhaust pipe is dropping due to the outrush of gas from the pipe. This pulls a vacuum in the exhaust pipe, C′ D′, but the reduced pressure sets up a return wave, D′ E′, that has reached atmospheric pressure by the time the piston has reached the edge of the exhaust port on the compression stroke.

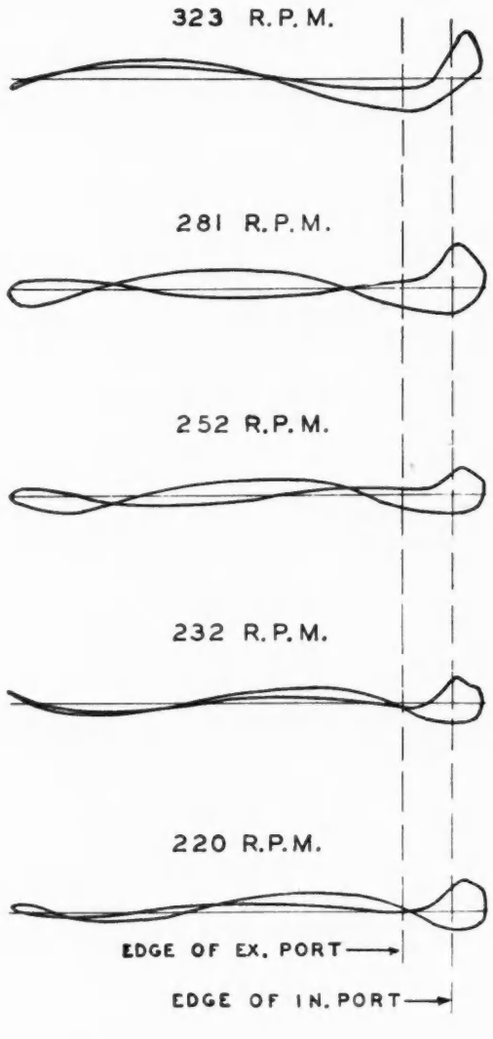
These exhaust pipe pressure waves cause a vacuum in the cylinder line, C D E, which, during the time the inlet port is uncovered, increase the pressure difference between the cylinder and the scavenging end. This added pressure difference permits an increased quantity of gas to flow into the power cylinder.

The diagrams shown in Figure 12 are fairly good, but they are not ideal. For instance, a more rapid increase of the exhaust pressure during the period D′ E′ would tend to increase the pressure at E to atmospheric or above. This would have the effect of returning any new charge that might have escaped to the exhaust and it would, if E were above atmospheric, be the equivalent of a slight degree of supercharging. It is sometimes possible to attain this condition[3], but it has not yet been accomplished in these tests. However, these cards, Figure 12, were obtained at very nearly the speed at which the lowest fuel rates were found so it seems logical to assume they are reasonably good.

Figure 14 shows the variation in shape of the exhaust line cards with speed for a constant exhaust pipe length. Hence, they correspond to good and bad operating conditions. For a speed of 323 revolutions per minute, the exhaust remains above atmospheric pressure during practically all the time that the intake port is open. As this higher exhaust pres-

FIGURE 14

Effect of speed on the shape of the exhaust line cards at 75 percent of rated load and a constant length of exhaust pipe.



[2] This is the equivalent of a 10-pound spring and a normal piston.

[3] Checking Gas Engine Performance, Figure 10, by Joseph Liston, The Oil Weekly, October 7, 1935.

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sure tends to resist the escape of burned charge which in turn prevents the entry of new charge, it corresponds logically with the observed fact that at this speed, for any given load, the air-fuel ratio was less than for operation at the correct exhaust pipe length. Also due to the lowered line pressure during the period between the closing of the inlet port and the closing of the exhaust port, there is more opportunity for the escape of new charge from the cylinder. These combined factors showed up in the tests as inability of the engine to carry an appreciable overload and a very pronounced tendency of the exhaust to smoke at high loads. From this we may conclude that the exhaust line card for 323 revolutions per minute is an indication of incorrect exhaust pipe length.

The exhaust cards for 281 and 252 revolutions per minute are improvements over the one for 323 revolutions per minute as indicated by the increased portion of the card being below atmospheric pressure during the intake period, and the improvement in fuel consumption, Figures 6 and 7 which appeared in Part 1, tends to substantiate this reasoning, but the return wave after the inlet port closes is still too gradual in build up to prevent the escape of some of the new charge.

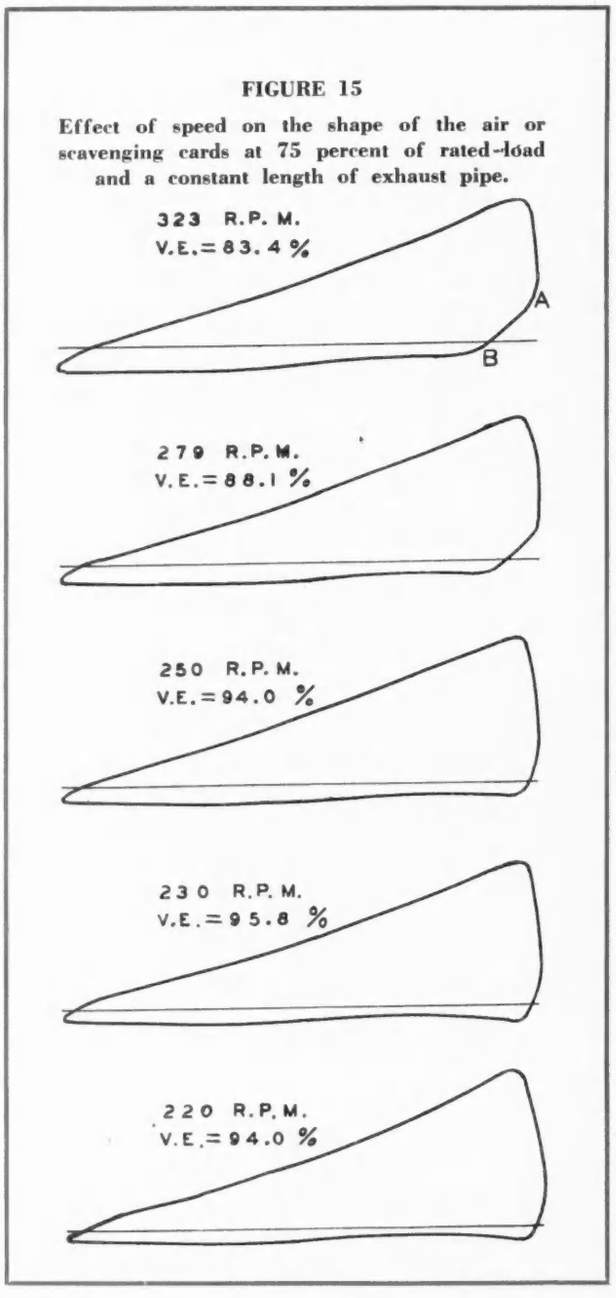

FIGURE 15

Effect of speed on the shape of the air or scavenging cards at 75 percent of rated-load and a constant length of exhaust pipe.

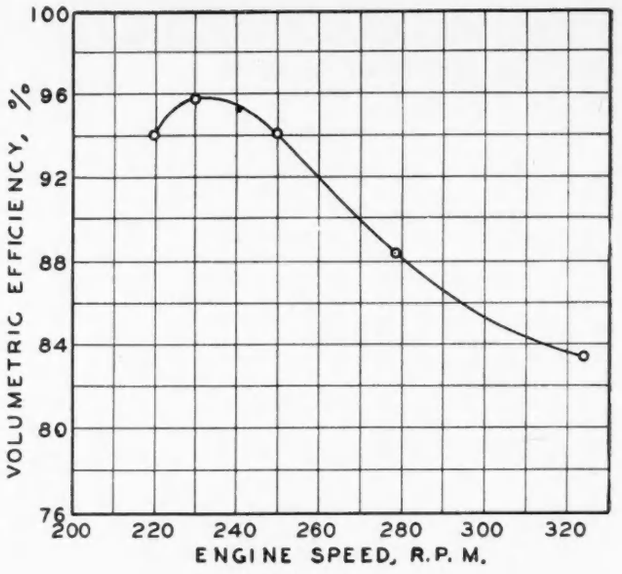

FIGURE 16

Variation of volumetric efficiency with engine speed for a constant exhaust pipe length and 75 percent or rated load.

The card for 232 revolutions per minute corresponds to the most economical operating conditions as found during the tests, and in view of this fact, it may be considered as representing good performance. However, the card for 220 revolutions per minute is quite similar and, at this speed, the fuel consumption was greatly increased over that at 232 revolutions per minute. This seems to indicate that considerable care should be exercised in drawing conclusions from exhaust line cards. A difference can be noted, though, in the delayed pressure build up at 220 revolutions per minute which continues after the inlet port opens.

Figure 15 shows the effect of speed, i.e., the effect of exhaust pipe length on the air or scavenging cards taken during the tests. The most noticeable variation is in the volumetric efficiency as measured from the cards. This value is highest at the speed of best economy and the decrease for higher speeds is particularly noticeable. Part of the decrease at the higher speeds may be accounted for by the relatively shorter time available for entry and exit of the air in the scavenging cylinder. This shows to a slight extent on the card for 323 revolutions per minute. At the left end of this card the drop in pressure below atmospheric is greater than for slower speeds, and this causes the compression line to cross the atmospheric line farther from the left end. But the reduction in volumetric efficiency is more pronounced at the right end of the card, due to the delay of the line, A-B, in dropping down to atmospheric. This delay is evidently due to a sustained higher pressure in the

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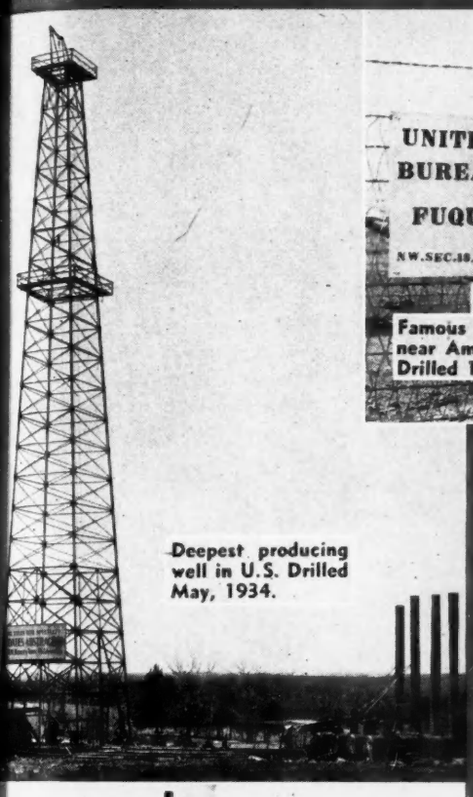

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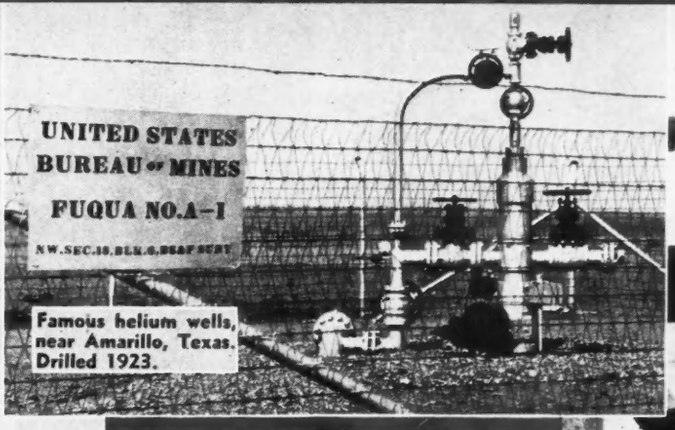

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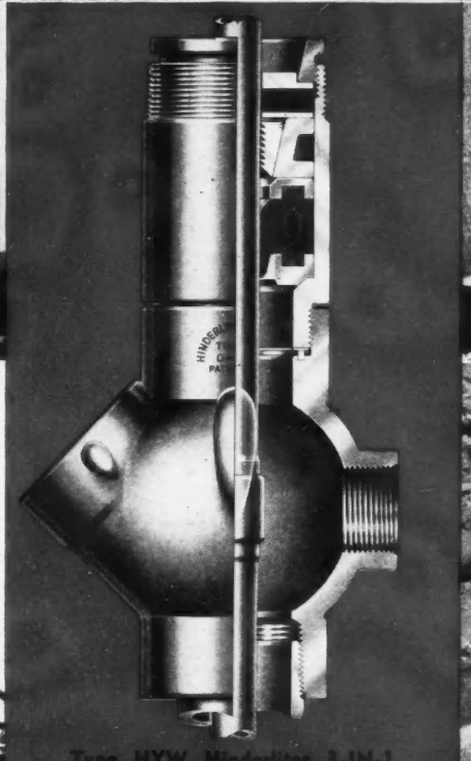

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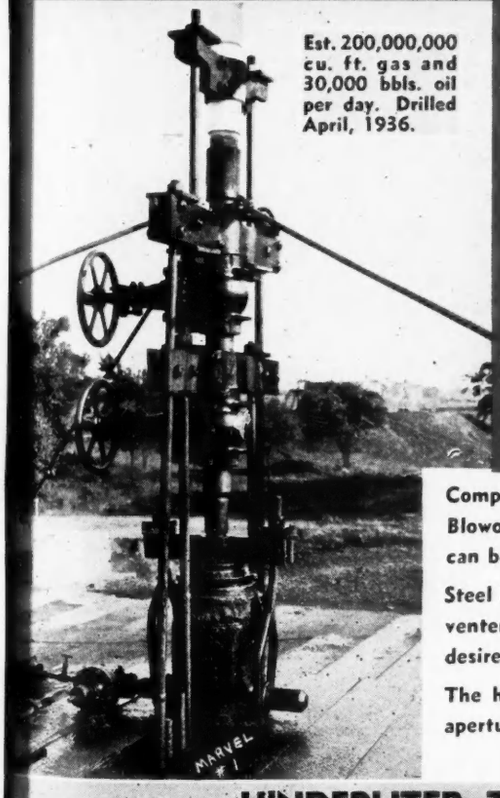

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cylinder during the time when the inlet port is open. The cylinder pressure will be maintained higher if the exhaust pressure is high. Inspection of the exhaust card for 323 revolutions per minute, Figure 14, shows the exhaust pressure remains high during the greater portion of the time when the inlet port is open.

For 230 revolutions per minute, Figure 15, the line at the right end of the air card drops down to atmospheric pressure much more quickly, and this materially increases the volumetric efficiency. Inspection of the exhaust line card for this speed, Figure 14, shows that more of the line is below atmospheric pressure during the time the intake port is open. Figure 16 shows graphically the effect of speed and exhaust pipe length on volumetric efficiency.

To show the relation of the pressure fluctuations in the exhaust, power cylinder, and air cylinder more clearly, the cards for three speeds have been converted to a pressure crank angle base and are shown in Figure 17.

The points designated, A, B, and C, correspond to the air, power, and exhaust pressures respectively at the point where the inlet port is just beginning to open. The vertical distance between A and B corresponds to the pressure difference that causes a flow of new air charge into the cylinder, and by inspection of this difference for the three speeds, it is readily seen that the difference is greatest for a speed of 230 revolutions per minute. Since the flow is proportional to the pressure difference causing the flow, it is quite evident that more new charge will flow into the cylinder at 230 revolutions per minute, and the minimum flow will be had at 323 revolutions per minute. This agrees rather well with the observed results from the test, and is, therefore, a means of checking the effectiveness of operation.

It would be quite tedious to plot such diagrams from the indicator cards, but by using the same card for each indicator in turn, the diagrams could be superimposed as they were taken. It would be necessary to set the indicator out of phase in order to

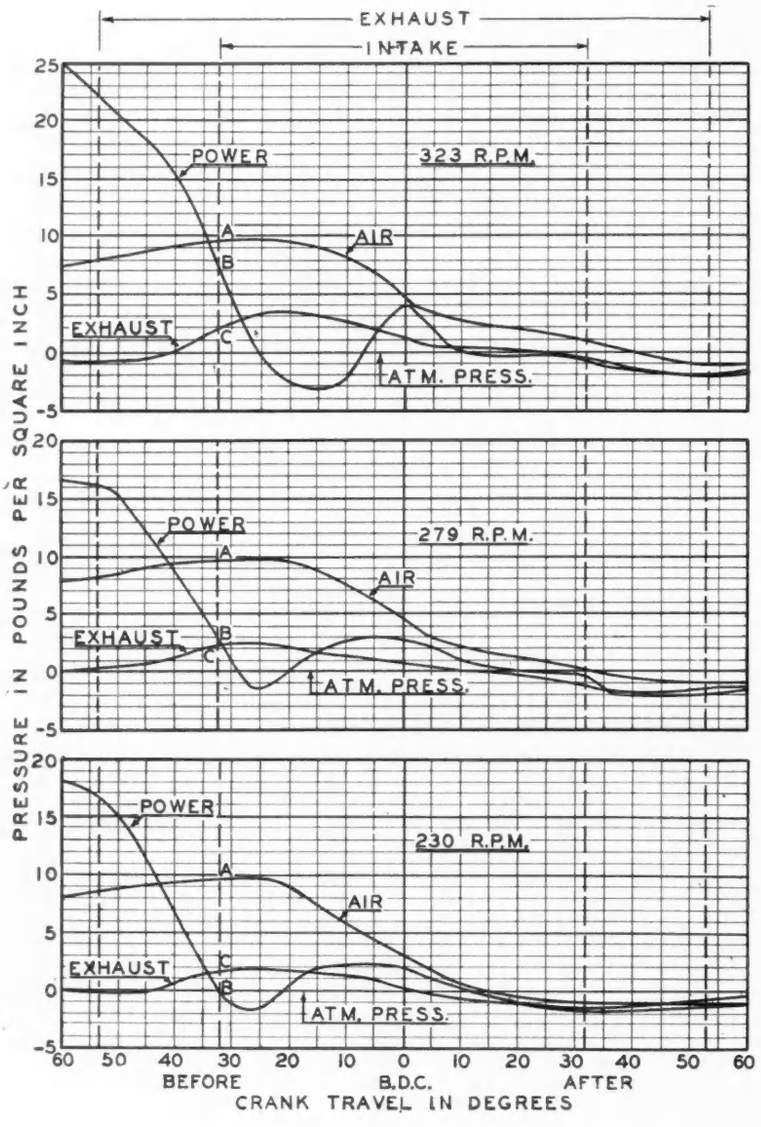

FIGURE 17

Variation of pressure in the air and power cylinders and the exhaust line during the charge transfer period. Effective scavenging and resulting economy seems to be a direct function of the pressure difference (A-B) in the air and power cylinders at the initial opening of the inlet port.

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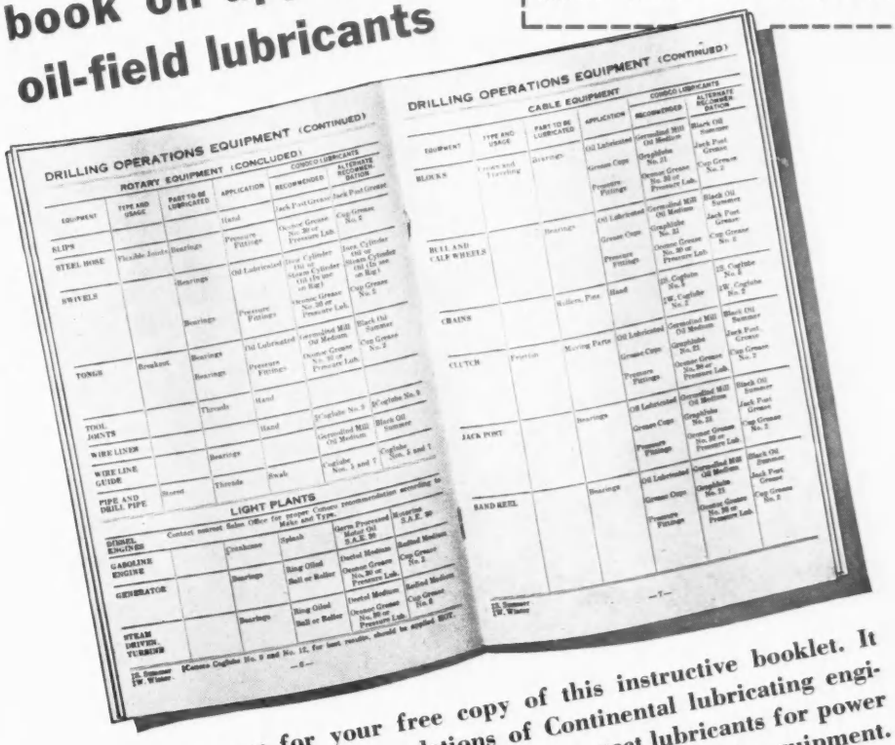
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spread the part of the car near dead center enough for proper inspection.

From the curves shown in Figure 17, there is considerable evidence to indicate that at all speeds most of the new charge is inducted during the first part of the intake period. During the last half of the intake period, the pressure difference between the air and power cylinders is so small that relatively little flow into the cylinder takes place. However, the rate of flow may continue to some extent due to inertia of the high velocity gases.

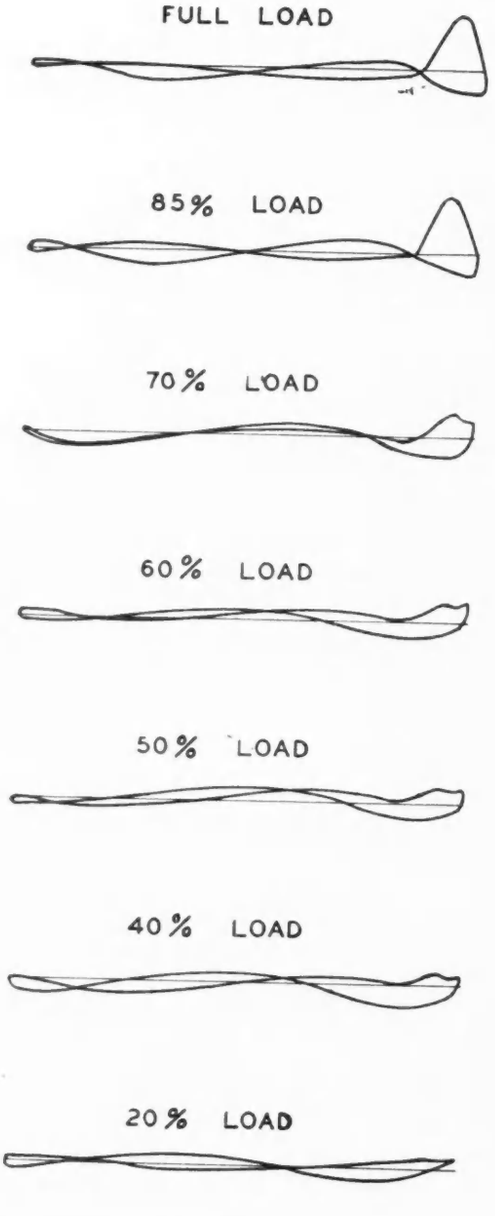
It is interesting to note also that the curves are not uniformly damped pressure waves of simple form. This is evidence that the waves are the resultants of several individual waves, and this complicates a detailed analysis directed toward predicting the correct length of pipe to use for a new installation. In other words, if an exhaust piping system is to be designed, not only the relation of the length of the pipe to the speed at which the engine is to operate must be known, but also the shape and number of turns must be considered.

Figure 18 shows the effect of load on the shape of the exhaust line cards. These cards were taken at a speed of 232 revolutions per minute and correspond to fuel rate curve B, Figure 8. Hence, they represent good conditions of economy, but at the low loads, there is considerable similarity with the cards obtained at higher speeds and higher loads, Figure 14. Particularly, the return pressure wave does not build up fast enough at the light loads, and if the usual analysis of this factor is correct, a pipe length that is correct for high loads would be incorrect at light loads even at the same speed. This complicates the matter of selecting a pipe length considerably as it is not practical to vary the pipe length with load. Unfortunately, data are at present too limited to analyze this problem further. However, it is of interest to note that pressure waves are closely related to the velocity of sound in the medium, and the velocity of sound is determined in part by the temperature. Hence, the variation of temperature of the exhaust gases with load, Figure 19, may have much to do with the timing and frequency of the exhaust pipe pressure waves. Additional study along this line would be interesting.

This concludes this series of articles on the exhaust pipe length as a factor in two-cycle engine economy.

FIGURE 18

Effect of load on the shape of the exhaust line cards for the speed giving best economy.



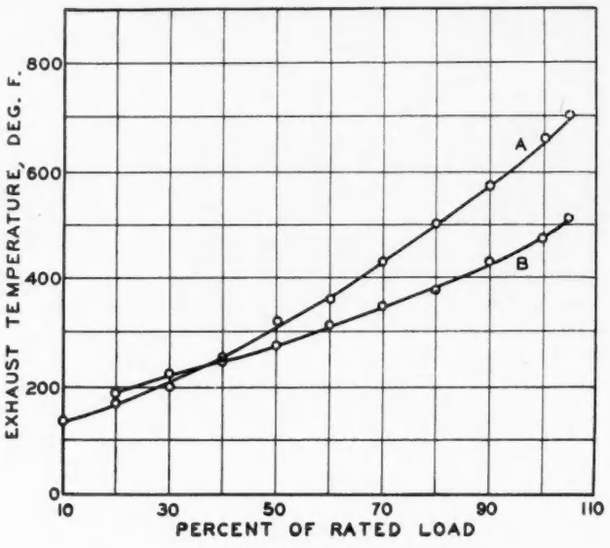
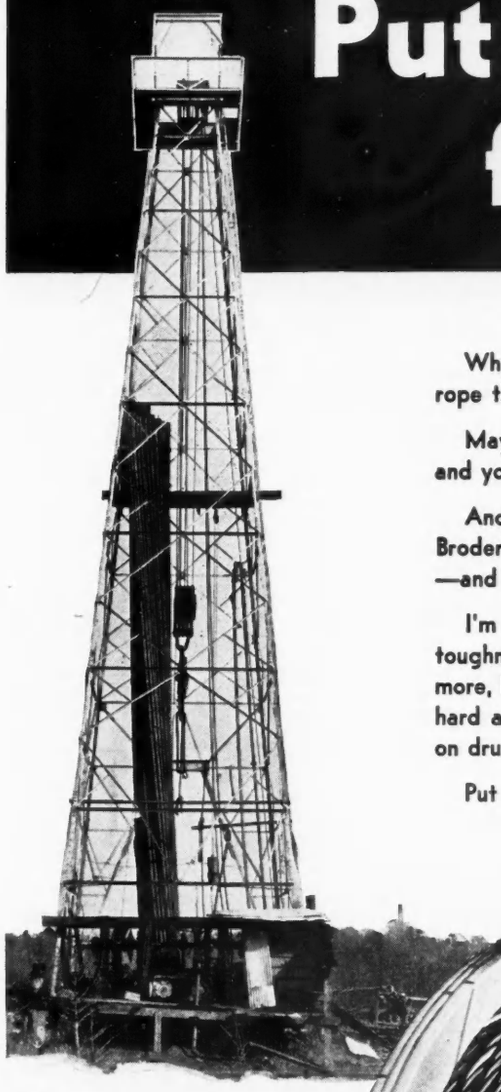


FIGURE 19

Variation of exhaust line temperature with load for (A) a speed at which the exhaust line length was not correct, and (B) the correct exhaust line length-speed combination.

Put ME to work for YOU!



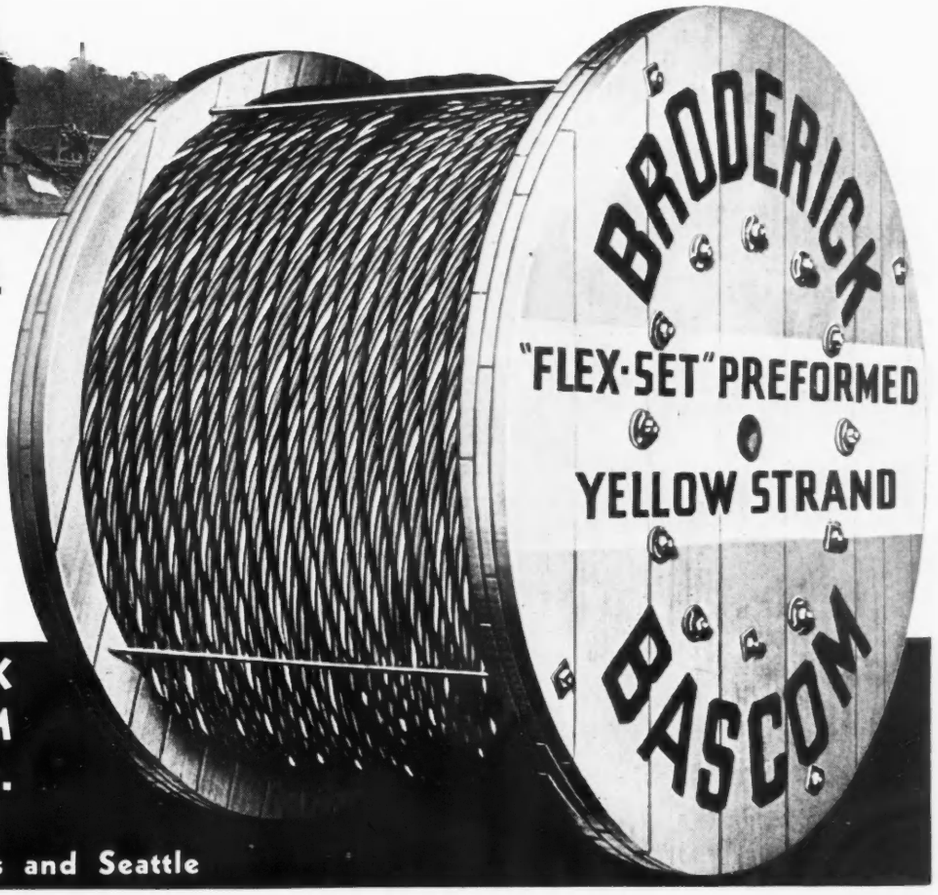
Why not? I'm "Flex-Set" Preformed Yellow Strand, the toughest rope that ever ran and landed a string of casing.

Maybe you think I'm boasting. Well, just put me to work for you and you'll soon find out how tough I am.

And why shouldn't I be tough? My wires are especially drawn to Broderick & Bascom's specifications. And are those specifications high—and exacting! I'll say they are!

I'm preformed, which adds a lot of other good qualities to my toughness. It makes me limber—easy to handle and install. What's more, by preforming, I'm practically pre-broken in, so you can work me hard and fast soon after putting me on. And how I do resist crushing on drums! You'll be surprised.

Put me to work for you right now. I'm tough.



The CONTINENTAL SUPPLY CO.

Mid-Continent and Rocky Mountain Distributors

•

MURRAY-BROOKS HARDWARE CO.

South Louisiana Distributors

T-20R1

BRODERICK & BASCOM ROPE CO.

ST. LOUIS

Factories: St. Louis and Seattle

SIMPLE INSTALLATION OF A RECORDER IS BEING USED TO

Meter Disposal Water

By JOHN C. ALBRIGHT

WHEN Union Oil Company of California removes the emulsion from its Santa Fe Springs production, it accounts for the water volume so as to check with the total gross production coming from the wells and leases. The method being used by the company to measure the water volume is simple but efficient.

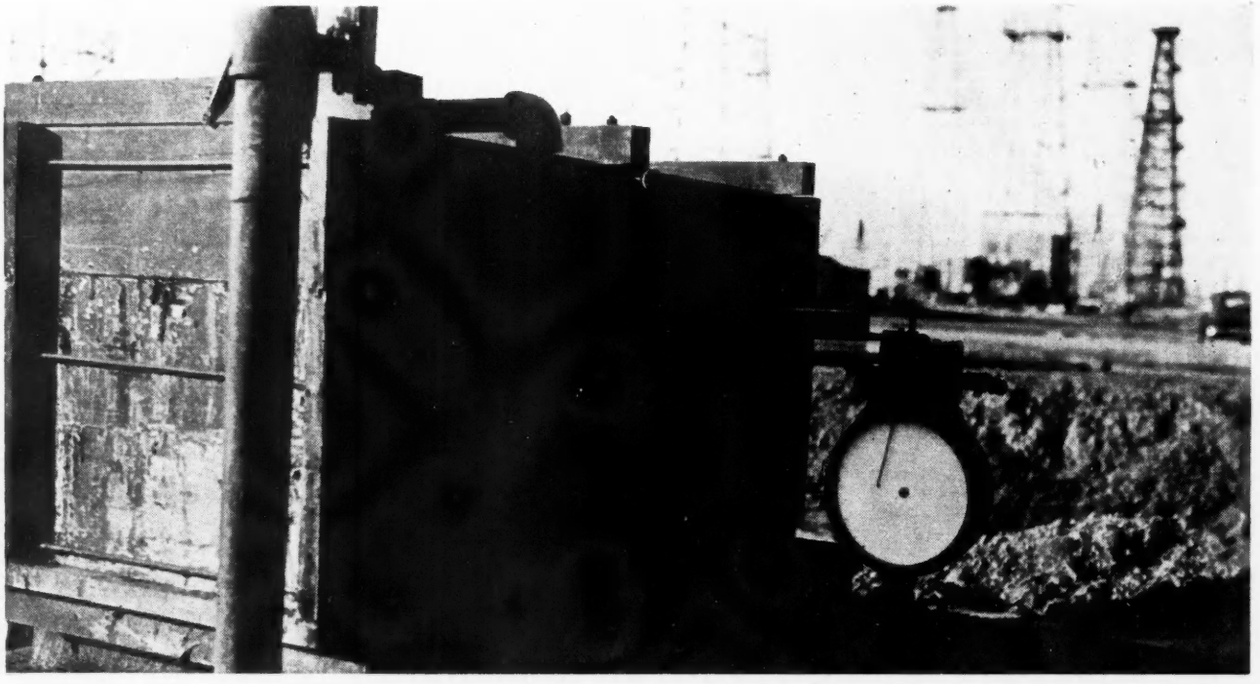
The company treats the oil by steaming, heating and the use of some treating compound. Water is separated from the oil by more or less conventional methods, and is drained away continually from the tanks into disposal lines.

Originally, the measurement of this water was accomplished by flowing it through a wier box, so constructed that it would show so many miner's inches of water for a certain period. To determine the exact amount of water flowing without an appreciable head, one of the men on the lease conceived the idea of attaching an ordinary differential meter recorder to the flow of water, so that the amount as well as time involved could be registered.

The wier was made so that it could carry a certain amount of water when running full, and the meter was connected in such a manner that only the differential pressure would be recorded when water was flowing from the separating tanks through the wier box. The meter-recorder was mounted at the proper height so pipe connections could be inserted in one of the differential connections of the recorder, and another connection with a small reservoir attached to the other opening. A street ell was screwed in a threaded opening placed in one side of the small reservoir so it could be easily moved by hand.

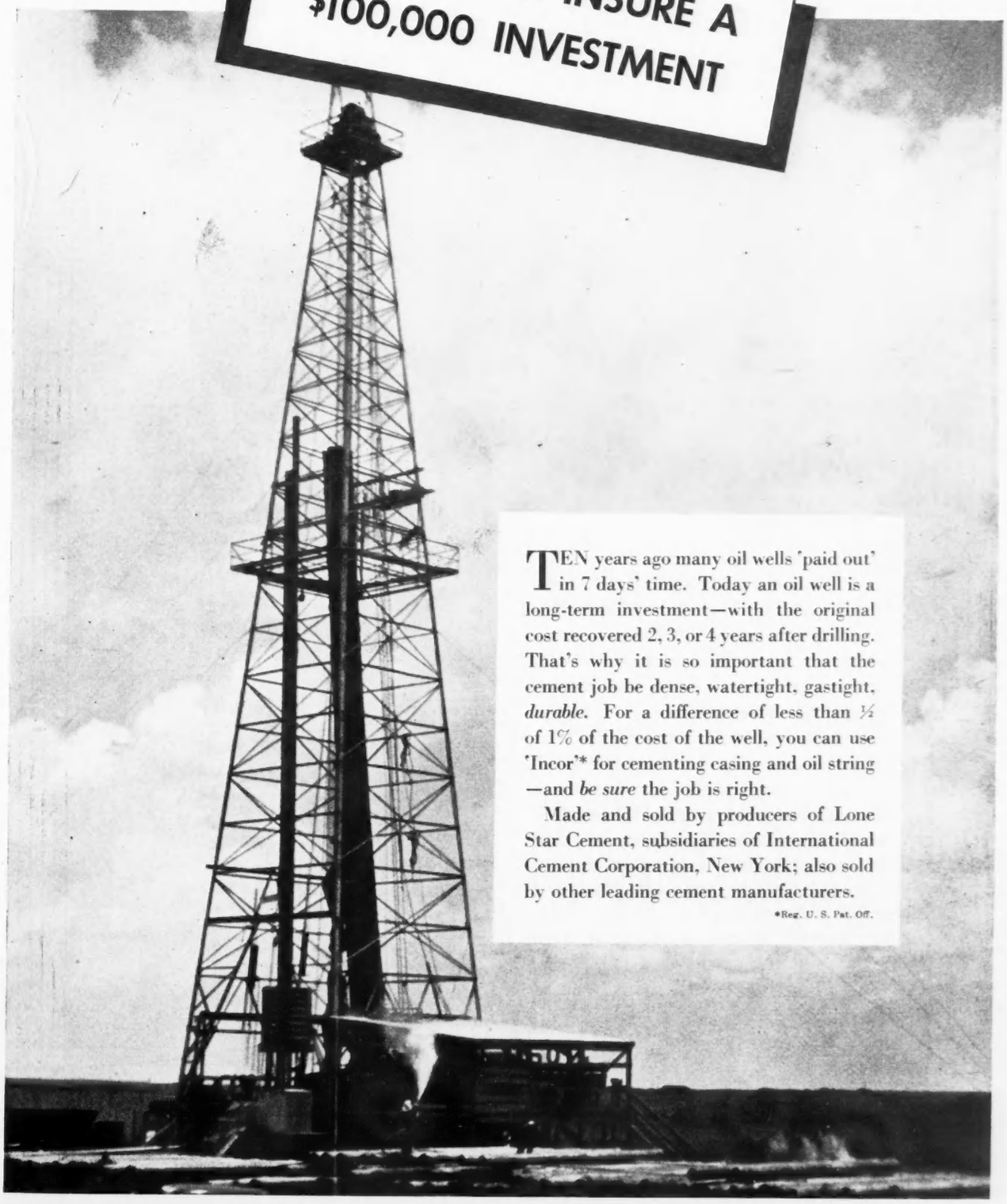
When the recorder is connected to the wier box, and the small reservoir filled with water, the differential pen arm sets on the zero line of the chart. When water is flowing from the separator tanks at the treating plant, the varying head of water in the wier causes the differential pen arm to move. With a small amount of adjustment in the setting, the height, or weight of water in the small reservoir, and the amount of water flowing through the wier box is accurately measured.

The accuracy of this recorder, and the setting of it, is occasionally checked by using the gauge pole in the tanks. It is so accurate, that readings made on the chart check very closely with gauging methods, otherwise employed in measuring oil and water.



Orifice meter recorder used by Union Oil Company at Santa Fe Springs to measure, by differential pressure, the amount of water flowing from separating tanks at a crude oil treating plant.

½ OF 1% TO INSURE A $100,000 INVESTMENT



TEN years ago many oil wells 'paid out' in 7 days' time. Today an oil well is a long-term investment—with the original cost recovered 2, 3, or 4 years after drilling. That's why it is so important that the cement job be dense, watertight, gastight, *durable*. For a difference of less than ½ of 1% of the cost of the well, you can use 'Incor'* for cementing casing and oil string —and *be sure* the job is right.

Made and sold by producers of Lone Star Cement, subsidiaries of International Cement Corporation, New York; also sold by other leading cement manufacturers.

*Reg. U. S. Pat. Off.

'INCOR' 24-Hour Cement

NAPHTHAS **FUEL OILS**

DIESEL OIL **KEROSENE**

GASOLINE **INDUSTRIAL**

AUTOMOBILE LUBRICANTS

BRIGHT STOCKS

Nine strategically located Shell Refineries — Arkansas City, Kan. Coalinga, Cal. • Dominguez, Cal. • East Chicago, Ind. • Houston, Texas Martinez, Cal. • Norco, La. • Wilmington, Cal. • Wood River, Ill.

Not Much Change

GASOLINE MARKET IS HOLDING BUT KEROSENE DROPS FURTHER

THE oil industry's markets experienced very little change during the past week, aside from a further weakening of kerosene prices; and as the week ended, there were not any indications of any immediate altering of the existing situation.

There have been reports of some price shading of low octane gasoline, but the market in general has retained its position of the past several weeks. Although gasoline inventories are considered too high by some, the demand has continued comparatively heavy, and offerings have been fairly well absorbed.

The weakness of the kerosene market is attributed largely to the drought in the Middle West, which has appreciably curtailed normal kerosene requirements among the farmers. Kerosene prices have been steadily declining for several weeks. Last week they lost another one eighth cent, and then were about three eighths of a cent lower than at the beginning of July.

Crude Market Firm

The crude oil markets continue generally firm, as it is indicated that output of the raw material will be fairly close to the economic level until the end of August. State allowables for August in Oklahoma, Kansas, Texas, and New Mexico conform closely with the Bureau of Mines recommendations. Consequently, the only important excesses during the month will be in Louisiana and California, which previously also have failed to adhere to the federal allocations.

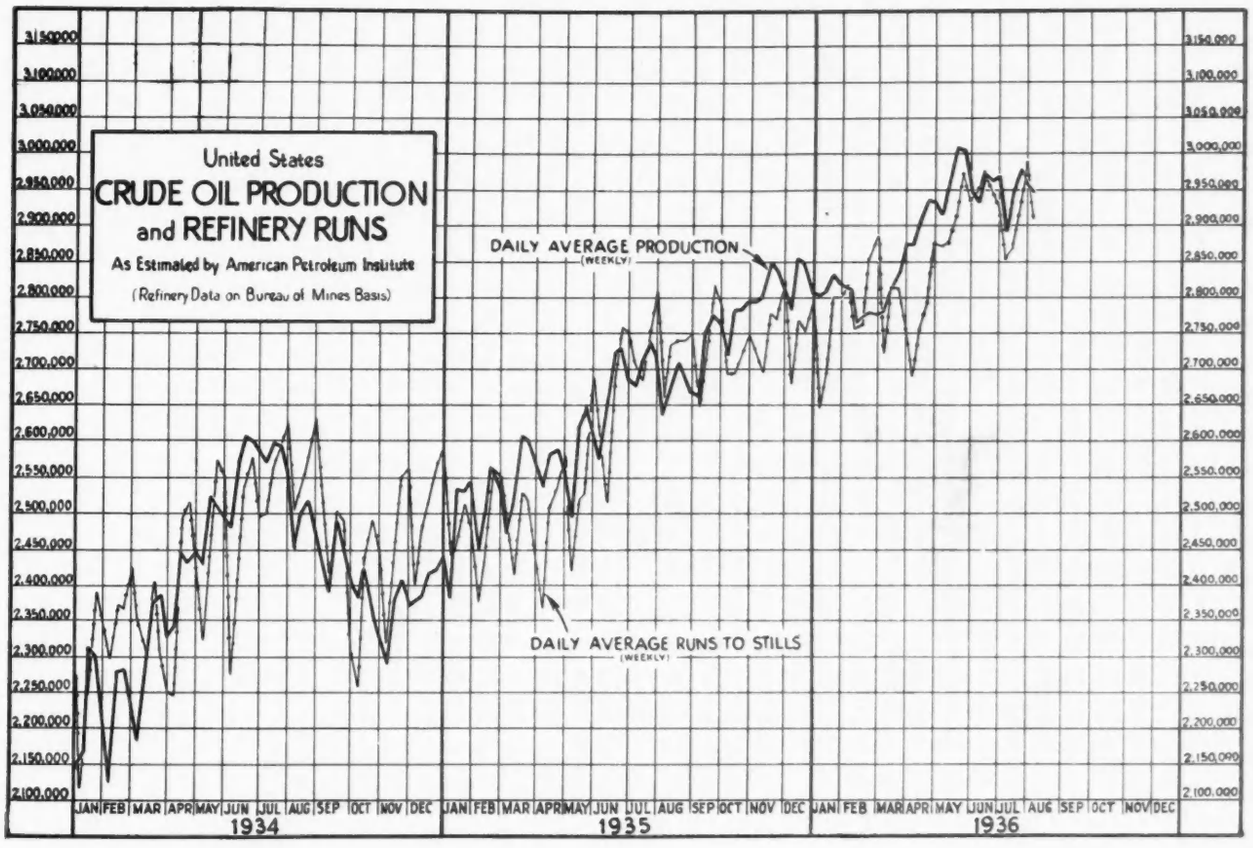
Although gasoline stocks are perhaps greater than justifiable, they are steadily being reduced. The total stocks of finished and unfinished gasoline came down approximately 1,000,000 barrels during the week ended August 1, according to the American Petroleum Institute. The total on hand on August 1 was 65,819,000 barrels.

Natural gasoline has continued a firm feature of the market. Fuel oils continue to draw interest, as numerous inquiries are made for future shipment. However, relatively few sales are occurring, as prospective buyers appear generally unwilling to pay the prevailing prices.

Mid-Continent Prices

Late last week U. S. motor gasoline prices f.o.b. Oklahoma refineries ranged as follows: 62 octane and below, 4⅞ to 5 cents; 63 to 67 octane, 5⅜ to 5⅝ cents; and 68 to 70 octane, 6 cents. The corresponding prices in the Chicago market were 4¾ to 5 cents, 5 to 5½ cents, and 5⅝ to 6 cents. In East Texas fully tendered third grade U. S. motor gasoline continued priced at 4¾ cents a gallon.

Kerosene prices at the Mid-Continent refineries were one eighth cent a gallon lower than one week previously. The 41-43 water white grade was priced at 3⅛ to 3⅜ cents a gallon in both the Oklahoma and Chicago markets, and the 42-44 water white grade at 3⅜ to 3⅝ cents.



Continue Buying

MAJORS TAKE EAST TEXAS SURPLUS DESPITE CHARGES

TYLER.

MAJORS have not discontinued their long standing policy of buying a large portion of the fully-tendered gasoline manufactured by East Texas independent refiners. Plant owners were perturbed over their outlook when federal charges were preferred against sellers and buyers last week at Madison, Wisconsin, but have since been assured by the majors that normal support of the East Texas gasoline market would be continued as long as a demand existed for the motor fuel. Majors have been absorbing about one-third of the motor fuel moved from the East Texas field in tank cars, and plant owners are dependent upon this outlet to maintain normal operations. Withdrawal of the majors would have a tendency to depress the spot price level, and possibly place the independent refiners on a non-profitable basis.

During the week ending August 2, East Texas refiners shipped 673 cars of gasoline in tank cars, including motor fuel derived from Rodessa and Talco crudes, and majors were credited with buying 142 cars at 4⅝ cents per gallon and 90 cars at 4½ cents per gallon. Current estimates on the volume of illegal crude production in the East Texas field average 9200 barrels daily, but retail gasoline price wars now prevalent within trucking of the plants indicates that a greater amount of illicit crude is reaching the plants. Retail prices have dropped to 10 and 11 cents per gallon including five cents in taxes, in territory extending as far west as Fort Worth.

East Texas Tank Car Shipments

Week Ending August 2, 1936

PRODUCTS	No. Cars	Estimated Gallons
Gasoline	673	5,505,105
Fuel Oil	344	3,182,239
Casinghead Gasoline	86	724,912
Distillate	76	592,984
Gas Oil	28	230,878
Kerosene	23	175,895
Naphtha	12	98,987
Residuum	12	97,334
Topped Crude	1	8,079
Total	1,255	10,616,393
Total Previous Week	1,284	10,780,582
nterstate	463	.....
Intrastate	445	.....
Coastwise	347	.....
Total	1,255	.....

EXTRA DIVIDEND

Chicago.—The directors of Standard Oil Company (Indiana) have declared a regular cash dividend of 25 cents and an extra cash dividend of 25 cents on each share of its capital stock, the same to be paid on September 15, 1936, to the stockholders of record at the close of business August 15, 1936.

In making the announcement, President Edward G. Seubert said that on the basis of earnings for the past six months, as now approximately known, the extra payment was justified.

TEXAS HEARING

For September scheduled on August 17 at Austin

AUSTIN.

THE Texas statewide oil and gas hearing has been dated for August 17 at Austin.

At this time very little is foreseen for the meeting unless politics crop out, as at the last hearing when Commissioner Lon A. Smith berated his own engineering staff and demanded a higher allowable for East Texas.

Under the head of unfinished business are spacing rules for several fields and a changed method of allocation for the Yates field. These subjects have been submitted to the commission but politics has delayed action upon them.

TEXAS UNDER

Bureau allowable after a mistake is corrected

AUSTIN.

AN over-estimate of the August 1 East Texas allowable resulted in a reduction in the total state allowable as of August 1 to a point below consumer demand.

When the commission issued its state-wide order, the state top was estimated at 1,157,941 barrels, which figure included 434,000 barrels for East Texas.

The actual East Texas allowable August 1, was 429,918 barrels, thus reducing the state top to 1,153,859 barrels. Consumer demand allocation to Texas for August was 1,154,700 barrels.

Summary of Wells Completed in the United States Week Ending August 8, 1936

	Completions	Oil Wells	Gas Wells	Failures	Initial Production	Total Completions 1936	Total Completions this Date 1935
Alabama	....	....	....	....	.....	2	4
Arkansas	4	1	....	3	480	61	90
California	16	16	....	....	4,900	671	515
Colorado	....	....	....	....	.....	6	7
Illinois	....	....	....	....	.....	4	9
Indiana	....	....	....	....	.....	133	129
Kansas	43	25	1	17	16,919	988	843
Kentucky	....	....	....	....	.....	158	102
Louisiana	18	14	2	2	14,302	623	466
Michigan	18	8	5	5	868	466	299
Mississippi	....	....	....	....	.....	5	14
Montana	3	2	....	1	82	86	88
New Mexico	8	8	....	....	5,475	337	168
New York	....	....	....	....	.....	....	....
Ohio	27	2	13	12	18	1,141	888
Oklahoma	62	49	1	12	110,277	1,770	1,434
Pennsylvania	....	....	....	....	.....	....	79
Texas	312	234	17	61	335,250	7,550	7,441
Utah	....	....	....	....	.....	....	....
West Virginia	9	2	7	....	30	394	300
Wyoming	2	2	....	....	2,534	41	45
Florida	....	....	....	....	.....	2	....
Total this week	522	363	46	113	491,135	14,438	12,922
Total last week	444	299	39	106	415,868	....	....
Total this year	4448	9,656	1,373	3,409	14,053,545	....	....

Comparison of Permits Granted for New Wells

STATE	Week Ending Aug. 8	Total this Mo.	Total this Year	Total this Date Last Year	1935 Year Total
Arkansas	2	4	59	26	70
California	14	45	611	570	925
Louisiana	19	36	723	520	846
Kansas	42	79	1,110	608	1,204
Michigan	11	28	445	361	749
Oklahoma	56	121	1,482	1,331	2,311
Texas	382	862	9,252	6,889	10,800
Total	526	1,175	13,682	10,305	16,964

PRODUCTION UP

17,150 barrel increase in U. S. daily output

UNITED STATES crude oil production averaged 2,954,150 barrels daily during the week ended August 8. That was 17,150 barrels a day more than in the previous week, and 17,250 barrels a day more than the Bureau of Mines recommendation.

The increase was due largely to higher recoveries in Texas and California. The latter state was the greater factor, increasing its output by 31,500 barrels to a total of 588,000 barrels. Texas, in producing 1,153,300 barrels daily, produced 6000 more barrels daily than in the previous week. A few other states had slight increases.

Oklahoma and Kansas were responsible for keeping the United States recovery from showing a far greater increase. In Oklahoma production was 532,300 barrels, a decline of 8775 barrels per day, and which put the state 43,200 barrels below bureau recommendations. Kansas registered a decrease of 17,375 barrels in yielding 138,650 barrels, which was 27,850 barrels below the Bureau of Mines recommendations for the state during August.

Louisiana's production was up 700 barrels from the previous week, in averaging 233,725 barrels daily. The state during the new week showed an excess of 45,225 barrels daily above the federal allocation.

New Mexico output remained unchanged from the previous week's level, at 74,200 barrels daily, and was 4100 barrels daily above the federal government's recommendation.

OKLAHOMA POTENTIAL

Oklahoma City. — The Oklahoma State Corporation Commission will decide August 11 whether open-flow potential tests on wells in the Wilcox sand zone of the Oklahoma City field will be made during September for allowables which take effect in October. Large flow in the north end of the zone has complicated a situation already acute because of persistent opposition to open-flow tests in the Oklahoma City and other areas. Small well owners in the south end are expected to object if the percentage decline is accepted.

EXTENDING LINE

Philadelphia. — Keystone Pipe Line Company, transportation unit of the Atlantic Refining Company, will start construction work shortly on a 75-mile eight-inch branch line from its trunk line that delivers gasoline and other refined products from the latter's refinery near Philadelphia to Pittsburgh and intermediate points. The extension will be built northwest from Quentin station, near Cornwall, via Sunbury to Williamsport, Pennsylvania, and is to be completed before the end of the current year. Considerable mountain country will be encountered in reaching Williamsport.

United States Crude Oil Production

Estimates Compiled by THE OIL WEEKLY

DISTRICT OR STATE	Bureau of Mines Recommendation (Daily in Aug.)	ACTUAL PRODUCTION: BARRELS DAILY FOR WEEK ENDING Aug. 8	Aug. 1
TEXAS—			
Texas Panhandle	.....	61,500	61,200
North Texas	.....	59,700	59,600
West Central Texas	.....	26,100	25,800
West Texas	.....	179,800	178,100
East Central Texas	.....	57,800	56,100
*East Texas Field	.....	430,300	428,800
†South Texas	.....	85,400	85,900
†Texas Gulf Coast	.....	252,700	251,800
*Total Texas	1,154,700	1,153,300	1,147,300
OKLAHOMA—			
Oklahoma City	.....	125,050	125,600
Seminole Area	.....	121,700	133,000
Tatums	.....	3,435	3,450
Lucien	.....	12,750	12,100
Fitts	.....	45,700	55,975
Edmond	.....	10,475	10,450
Others	.....	213,200	200,500
Total Oklahoma	575,500	532,300	541,075
KANSAS—			
Ritz-Canton	.....	6,300	7,075
Voshell	.....	2,875	2,925
Nikkel-Hollow	.....	3,825	3,800
Sedgwick	.....	5,325	5,375
Burrton-Haury	.....	14,200	13,725
Lorraine	.....	3,425	7,975
Oxford	.....	2,900	3,025
Others	.....	100,800	112,125
Total Kansas	166,500	138,650	156,025
LOUISIANA—			
North Louisiana	.....	84,625	83,325
Louisiana Gulf Coast	.....	149,100	149,700
Total Louisiana	188,500	233,725	233,025
ARKANSAS	31,200	29,175	29,475
CALIFORNIA—			
Long Beach	.....	67,000	66,000
Santa Fe Springs	.....	46,000	44,000
Huntington Beach	.....	36,500	36,000
Dominguez	.....	26,500	27,000
Inglewood	.....	13,500	11,500
Ventura Avenue	.....	33,500	33,000
Seal Beach	.....	8,000	7,500
Midway-Sunset	.....	60,500	47,500
Elwood	.....	12,000	12,500
Kettleman Hills	.....	81,000	77,000
Mountain View	.....	25,000	25,000
Playa del Rey	.....	12,500	12,500
Others	.....	166,000	157,000
Total California	550,000	588,000	556,500
MOUNTAIN STATES—			
Wyoming	38,600	39,100	38,300
Montana	13,900	15,800	15,900
Colorado	4,700	4,700	4,500
Total Rocky Mountain States	57,200	59,600	58,700
NEW MEXICO	70,100	74,200	74,200
EASTERN STATES	110,800	112,400	110,200
MICHIGAN	32,400	32,800	30,500
*Total United States	2,936,900	2,954,150	2,937,000
*Surreptitiously produced oil in East Texas, not included in above figures, estimated at	.....	15,000	15,000
Grand Total, including surreptitious production	.....	2,969,150	2,952,000

† Coastal Section of South Texas is included with Texas Gulf Coast.

Crude Runs to Stills; Stocks of Finished and Unfinished Gasoline and Gas and Fuel Oils, and Cracked Gasoline Production, Week Ended August 1, 1936

(Figures in thousands of barrels of 42 gallons each as reported to American Petroleum Institute)

DISTRICT	Daily Refining Capacity			Crude Runs to Stills		Stocks of Finished and Unfinished Gasoline				Stocks of Gas and Fuel Oil			Daily Charging Capacity of Cracking Units			Cracked Gasoline Production
		Reporting				Finished								Reporting		
	Potential Rate	Total	%	Daily Average	% Operated	At Refineries	Terms. Trans. Pipe Lines	Unfinished in Naphtha Distillates	Total Finished and Unfinished	Gas, Oil & Distillate	Residual Fuel Oil	Total	Potential Rate	Total	%	Daily Average
East Coast	612	612	100.0	497	81.2	6,069	10,974	997	18,040	5,658	5,577	11,235	534	534	100.0	103
Appalachian	154	146	94.8	106	72.6	1,062	964	255	2,281	304	234	538	79	78	98.7	24
Ind., Ill. Ky.	462	444	96.1	410	92.3	5,514	2,981	739	9,234	2,799	2,397	5,196	349	348	99.7	133
Okla., Kans. Mo.	453	384	84.8	287	74.7	3,328	2,076	519	5,923	979	2,482	3,461	256	228	89.1	75
Inland Texas	330	160	48.5	109	68.1	1,022	122	165	1,309	373	1,218	1,591	148	105	70.9	31
Texas Gulf	680	658	96.8	601	91.3	4,687	241	1,915	6,843	4,061	3,722	7,783	399	393	78.5	157
Louisiana Gulf	169	163	96.4	124	76.1	1,225	504	231	1,960	1,306	1,154	2,460	77	74	96.1	27
North La.,—Ark.	80	72	90.0	40	55.6	165	84	72	321	104	327	431	46	44	95.7	10
Rocky Mountain	97	60	61.9	50	83.3	1,016	.....	99	1,115	190	602	792	46	39	84.8	14
California	852	789	92.6	504	63.9	8,913	2,275	1,154	12,342	.....	.....	72,924	280	280	100.0	76
Reported	.....	3,488	89.7	2,728	78.2	33,001	20,221	6,146	59,368	.....	.....	106,411	.....	2,123	95.9	650
Estimated Unreported	.....	401	.....	182	.....	3,918	1,271	270	5,459	.....	.....	2,445	.....	91	.....	45
*Estimated Total U. S. August 1, 1936	3,889	3,889	.....	2,910	.....	36,919	21,492	6,416	64,827	.....	.....	108,856	2,214	2,214	.....	695
*Estimated Total U. S. July 25, 1936	3,889	3,889	.....	2,990	.....	37,719	21,557	6,543	65,819	.....	.....	107,595	2,214	2,214	.....	685
U. S. B. of M. July, 1935	.....	.....	.....	2,739	.....	†30,550	†19,922	†5,974	†56,446	.....	.....	†108,322	.....	.....	.....	602

* Bureau of Mines basis currently estimated. †As of July 31, 1935.

Want Equal Rules

[*Continued from page 11*]

indicate that the probable productive limits will include 24,000 acres, of which 16,000 acres will produce oil, while the remaining 8000 acres will produce gas only. There are three producing horizons, and some wells have been so completed that they produce from all three. The state line splits the field in half, according to geologists, so that about 12,000 acres in Texas will be productive. No production is expected below the south line of Cass County.

The lime formation from which production is derived is exceptionally uniform for a field of this type, Walter Spears, United Gas System geologist, told the commission. He said that the average porosity was about 18 percent, and that the permeability was normal.

Dr. E. A. Stephenson, who was also presented by United Gas System displayed a series of pressure charts showing the drop in pressure, most of which has taken place in Louisiana. He said that the most seriously depleted area was around Section 14 in Caddo Parish, where pressures had dropped as much as 900 pounds. He said that the average decline for the field up to July 1 was 353 pounds, but that the drop in Texas averaged only 68 pounds, which he did not consider alarming for that part of the field.

Around Section 14, however, the average drop has been 546 pounds for wells which had been producing for an average of 16.7 weeks. He pointed out that there were about 600 feet of gas in solution with each barrel of oil, and expressed the opinion that the wells would cease to flow when the pressure dropped to 1350 pounds, or about half the original pressure of 2700 pounds. The lowest recorded pressure in the field on July 1 was 1788 pounds.

Since the field has been productive there have been withdrawn 8,775,000 barrels of oil, 27,787,000,000 feet of gas which has been metered and about 49,000,000,000 cubic feet of unmetered gas. Stephenson estimated that each 1000 feet of gas occupied the same reservoir space as one barrel of oil, and from this he reasoned that the total withdrawals to July 1 were the equivalent of 85,562,000 barrels of oil, in terms of reservoir displacement.

Stephenson insisted that wide spacing of wells was essential. He expressed the opinion that one well to 40 acres would be sufficient to recover the oil and that additional wells were unnecessary to increase recovery. He contended that in no case should drilling be closer than one well to 10 acres.

He pointed out that while there was a concentration of wells around Section 14 in Louisiana, this concentration was 3½ miles from the Texas line, and that the average spacing in the intervening area was about one well to 50 acres. He said that it was not at all necessary to drill a great many wells in Texas to compete with Louisiana.

Stephenson insisted that if Texas producers withdrew daily the same volume from the reservoir as was withdrawn by Louisiana producers, there could be no migration of oil, gas, or pressure across the state line. He argued that it made no difference whether the withdrawal was from one well or 1000 wells.

This argument was endorsed by E. O. Buck, consulting petroleum engineer of Houston. A. F. Crider, consulting geologist of Shreveport, contended that it was essential to drill at least one well to 10 acres to insure the highest ultimate recovery. Closer spacing, he said, would mean more oil.

Testimony of Buck, Stephenson and Spears was attacked by independents who urged closer spacing. These operators, represented by Donald Marr, Charles L. Morgan, David Donoghue and others, attacked testimony of these witnesses and sought to show that additional drilling would mean higher recovery and protection from Louisiana producers.

Commission Chairman Thompson pointed out that the Louisiana Commission had not yet held a hearing. He expressed the hope that a similar set of rules could be provided for both states so that operations would be uniform throughout the field. He said that the Railroad Commission would send a representative to the Louisiana hearing.

At the conclusion of the testimony both sides presented lengthy arguments to the commission. Thompson said that the case would be taken under advisement and suitable regulations issued. He pointed out during the course of the hearing that there was no need for haste, since a temporary spacing rule and gas-oil ratio rule had been provided.

CRUDE OIL PRICE QUOTATIONS

(Figures Represent Basic or Flat Prices—Revised to August 7, 1936)

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Oklahoma-Kansas	28—$0.94	2¢	40—$1.18	1- 9-36
N. and N.-C. Texas	28— .84	2¢	40— 1.08	1- 9-36
Texas Panhandle				
Gray County	34— .86	2¢	40— .98	1- 9-36
Carson-Hutchinson	34— .81	2¢	40— .93	1- 9-36
West Texas				
Ector, Pecos, W'kler Crane, Upton, Howard and Glasscock	29— .76	2¢	36— .90	1-14-36
West Central Texas	28— .84	2¢	40— 1.08	1- 9-36
East Central Texas	28— .91	2¢	40— 1.15	1- 9-36
East Texas	*1.15			1- 9-36
Talco	* .60			4-15-36
Texas Gulf Coast				
Anahuac-Dickinson	30— 1.04	2¢	40— 1.24	1- 9-36
Conroe	35— 1.24	2¢	40— 1.34	1- 9-36
Tomball	*1.30			1- 9-36
Cleveland	*1.00			1-11-34
†Goose Creek, Hull Liberty, Orange, Pierce Junction, Moss Bluff, Raccoon Bend, Sour Lake, Spindletop, Sugarland, West Columbia, Humble, Rabbe Ridge	Below 17— .88	2¢	34— 1.22	1- 9-36
South and S. W. Texas	Below			
Refugio (Light)	17— .88	2¢	34— 1.22	1- 9-36
Refugio (Heavy)	*.90			1- 9-36
Saxet	*.90			1- 9-36
Mirando	*.85			1- 9-36
Pettus	*1.25			1- 9-36
Salt Flat	*.97			1-14-36
Darst Creek	*.97			1-14-36
Placedo (Heavy)	*.85			4- -36
Placedo (Light)	*.95			4- -36
Port Lavaca	*.97			
Plymouth	*.90			12-17-35

* All gravities—flat rate.
† Gulf Coast prices as posted by Humble Oil & Refining Company.

DISTRICT	Low Grav.	Dif.	High Grav.	Date
Arkansas				
El Dorado (Light) and Rainbow	25— .78	2¢	40— 1.10	1-10-36
El Dorado East Field and Smackover	*.75			1-10-36
North Louisiana	25—$0.78	2¢	40—$1.10	1-10-36
Urania	*.97			1-10-36
South Louisiana	Below			
Lockport	19— .92	2¢	34— 1.22	1- 9-36
Iowa, Cameron Mds.	Below 19— .82	2¢	34— 1.12	1- 9-36
Rocky Mountain States				
Salt Creek	29— .94	2¢	40— 1.18	1-10-36
Elk Basin	*1.18			7-20-36
Grass Creek (Light)	*1.18			7-20-36
Grass Creek (Heavy)	*.58			1- 9-36
Big Muddy	*1.11			1- 9-36
Rock Creek	*1.12			1- 9-36
Sunburst	*1.15			6- 5-36
Lance Creek	* .90			1- 9-36
Osage	*1.08			
Cat Creek	*1.07			8-25-33
Cut Bank	*1.35			6- 3-36
Ponders	*1.05			9-29-33
Hog Back, N. M.	*1.00			9- 8-33
Lea County, N. M.	*.75			9-29-33
Mid-West States				
Lima	*1.25			1-10-36
Illinois	*1.23			1- 9-36
Princeton	*1.23			1- 9-36
Western Kentucky	*1.23			1- 9-36
Pennsylvania				
Bradford	*2.45			1-13-36
Sw. Pa. Pipe Line	*2.17			1-13-36
Eureka Pipe Line	*2.12			1-13-36
Buckeye Pipe Line	*1.97			1-13-36
Corning Grade	*1.42			1-13-36
Michigan				
Central Michigan	*1.42			6-15-36
Muskegon	*.70-1.00			12-31-32
Canada				
Petrolia	*2.10			9- 9-33
Oil Springs	*2.17			9- 9-33

* All gravities—flat rate.
‡ Average price, all oil sales being to small refineries.

MAJOR PRICE CHANGES

	Penna. (Nat. Tr.)	Mid.-Cont. (36 Gr.)	Calif. (26 Gr.)
June 19, 1933	Up 10	Up 19	.....
June 26, 1933	Up 10	.....	Up 9-12
July 6, 1933	Up 13	Up 10	.....
July 17, 1933	Up 15	.....	.....
July 28, 1933	Up 15	.....	.....
August 11, 1933	Up 10	.....	.....
August 24, 1933	.....	Up 10	.....
August 30, 1933	Up 15	.....	.....
September 6, 1933	Up 10	Up 10	Up 15
September 8, 1933	.....	Up 15	.....
May 1, 1934	Up 10	.....	.....
November 6, 1934	Cut 25	.....	.....
December 6, 1934	Cut 25	.....	.....
January 4, 1935	Up 15	.....	.....
February 4, 1935	Up 15	.....	.....
May 16, 1935	Cut 15	.....	.....
June 26, 1935	Cut 15	.....	.....
July 16, 1935	Cut 10	.....	.....
August 29, 1935	.....	.....	Cut *4
September 6, 1935	Up 5	.....	.....
October 29, 1935	Up 15	.....	.....
November 1, 1935	.....	.....	Up *28
November 18, 1935	Up 15	.....	.....
December 6, 1935	.....	.....	Up *9
January 9, 1936	.....	Up 10	.....
January 13, 1936	Up 15	.....	.....
February 26, 1936	.....	.....	Up '5

CRUDE PRODUCTION TAXES

Oklahoma—Five percent of gross value less royalty interest.

Texas—Two cents or 2 percent, whichever is higher.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 percent of gross market values.

Montana—Two percent of gross value at well and ¾ of 1c per barrel.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

* All gravities—flat rate.
° Signal Hill 26 gravity.
' Seal Beach 26 gravity.

CALIFORNIA OIL PRICES

(All gravities above those quoted take highest prices of that field. Effective February 26, 1936)

Gravity	Signal Hill	ca Beach Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey	Olinda Brea Canyon	Athens Rosecrans	Elwood Terrace	Torrance	Richfield	Whittier East Coyote La Habra	Montebello	West Coyote Hills	Santa Fe Springs	New Hall McKittrick Kern River Round Mountain	Mountain View	Midway-Sunset Buena Vista Hills Elk Hills	Lost Hills	Coalinga	Wheeler Ridge
14-14.9	$.80	$.79	$.78	$.79	$.80	$.76	....	....	$.80	$.76	$.76	$.77	$.78	.....	$.70	....	$.70	$.70	$.70	....
15-15.9	.80	.79	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
16-16.9	.80	.79	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
17-17.9	.80	.79	.78	.81	.80	.76	....	....	.80	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
18-18.9	.80	.79	.78	.84	.80	.78	....	....	.82	.76	.76	.77	.78	.....	.70	....	.70	.70	.70	....
19-19.9	.82	.79	.82	.87	.84	.81	....	....	.85	.76	.78	.77	.78	.....	.70	$.70	.74	.74	.71	$.70
20-20.9	.85	.79	.85	.90	.88	.84	....	....	.88	.78	.82	.77	.80	.....	.....	.70	.78	.78	.72	.70
21-21.9	.88	.79	.89	.93	.93	.88	....	....	.91	.80	.85	.77	.84	.78	.....	.73	.82	.82	.74	.70
22-22.9	.92	.82	.92	.96	.98	.92	....	....	.93	.84	.89	.79	.88	.78	.....	.77	.87	.85	.78	.72
23-23.9	.95	.86	.96	.99	1.02	.96	$.84	....	.96	.88	.93	.82	.92	.78	.....	.80	.92	.90	.82	.76
24-24.9	.99	.91	1.00	1.02	1.06	.99	.88	....	.99	.91	.96	.85	.96	.82	.....	.84	.97	.94	.85	.79
25-25.9	1.03	.95	1.03	1.05	1.11	1.03	.93	....	1.02	.95	....	.89	.99	.86	.....	.88	1.01	.98	.90	.83
26-26.9	1.06	1.00	1.07	1.09	1.16	1.06	.98	....	1.05	.98	....	.92	1.03	.90	.....	.91	1.06	1.02	....	....
27-27.9	1.10	1.05	1.11	1.12	....	1.10	1.03	....	....	1.02	....	.96	1.06	.95	.....	.95	1.10	1.06	....	....
28-28.9	1.14	1.10	1.14	1.15	....	1.14	1.07	....	....	1.06	....	.99	1.10	.99	.....	.99	1.15	1.10	....	....
29-29.9	1.17	1.15	1.18	1.18	F.O.B.	1.17	1.12	....	....	1.09	....	1.08	1.14	1.03	.....	1.02	1.20	1.14	....	....
30-30.9	1.21	1.19	1.22	1.21	Pipe	1.21	1.17	F.O.B.	....	....	....	1.07	1.17	1.08	.....	1.06	1.25	1.18	....	....
31-31.9	....	....	....	1.24	Line	1.24	1.22	Ship	Kettleman Hills			1.11	1.21	1.12	.....	1.09	1.29	....	....	....
32-32.9	....	....	....	1.27	....	1.27	1.27	....				1.14	1.25	1.16	.....	1.13	1.34	....	....	....
33-33.9	....	....	....	....	....	....	1.32	$1.28		1.19		1.18	1.28	1.20	.....	1.17	1.38	....	....	....
34-34.9	....	....	....	....	....	....	1.37	1.32	....	1.23	....	1.22	1.32	1.25	.....	1.20	.....	....	....	....
35-35.9	....	....	....	....	....	....	1.42	1.35	....	1.27	....	1.25	....	1.29	.....	....	.....	....	....	....
36-36.9	....	....	....	....	....	....	1.46	1.39	....	1.31	....	1.29	....	1.33	.....	....	.....	....	....	....
37-37.9	....	....	....	....	....	....	1.51	1.43	....	1.35	....	1.32	....	1.37	.....	....	.....	....	....	....
38-38.9	....	....	....	....	....	....	1.56	....	....	1.39	....	1.36	....	1.42	.....	....	.....	....	....	....
39-39.9	....	....	....	....	....	....	1.61	....	....	1.43	....	1.40	....	.....	.....	....	.....	....	....	....
40-40.9	....	....	....	....	....	....	1.66	....	....	....	....	1.43	....	.....	.....	....	.....	....	....	....

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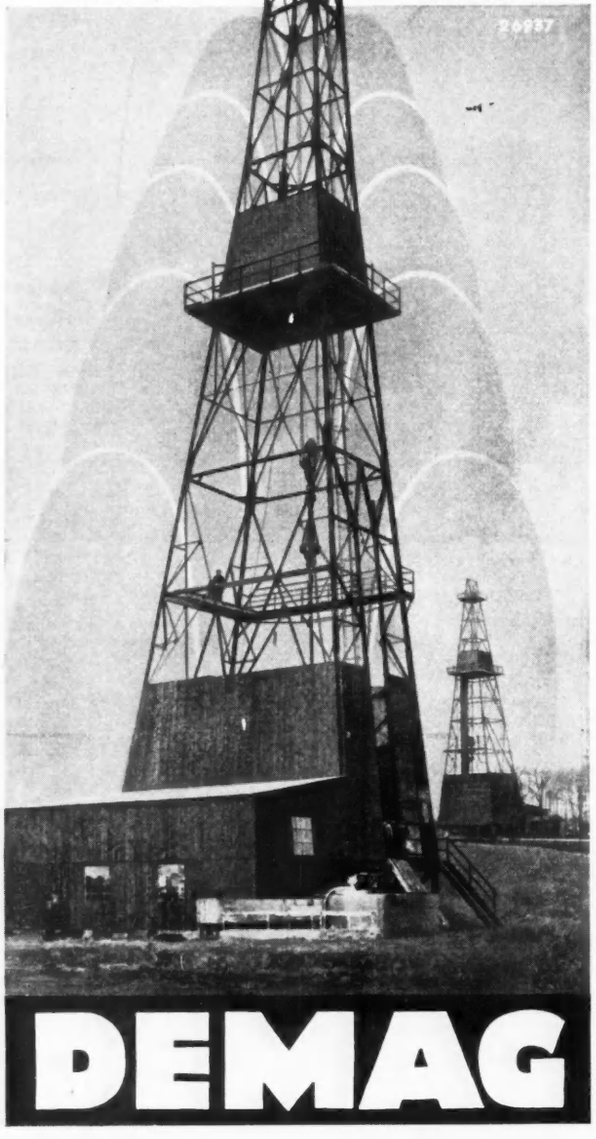

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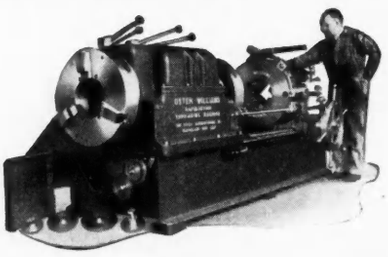

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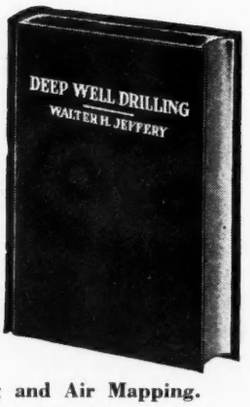

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Trust Busting

[*Continued from page 10*]

the department in large numbers for well over a year—together, it is understood, with criticisms of the activities of certain companies in the various producing fields. But whether the government's war on the oil industry will be extended into production could not be ascertained at the department.

History

Seed for the plant that came into respectable size with issuance of the indictment has been in the ground over a long period. Independent jobbers have complained against practices of major companies for a score of years. When the NIRA branch of the New Deal bloomed in 1933, the seeds began to sprout. Whatever the petroleum code may have done for the industry, it found no favor with independent jobbers. This business man found it detrimental to him.

It was during the code regime that anti-trust statutes were put aside and buying pools were looked upon with favor. When the Supreme Court decision ended the petroleum code, independent jobbers were prepard for action. The National Oil Marketers Association had been formed and Paul Hadlick, the secretary, announced that the Department of Justice had been asked to investigate further practices in selling petroleum products.

Two legislative investigations, one in Michigan and one in Minnesota, were the first direct action. Findings of these were laid before federal investigators. The National Oil Marketers Association heard much of these investigations at its first annual meeting in Chicago last November and the temper of its members was to the effect that the federal government be prodded until it carried out the investigation that had been indicated.

Finally the special grand jury was called and began its deliberations in Madison, May 4.

Future

John Boyle, United States district attorney, said that resumption of the investigation August 19 would be for the purpose of delving into the charge by jobbers that they are being forced out of business because of illegal tactics of the major oil companies.

United States marshals began serving the warrants which were dispatched from Madison. The defendants to appear before United States Commissioners in the district of their residence and post bonds pending arraignment. Formal arraignment, however, will be before the federal court at Madison.

Names of all but two of the defendants were made public in Washington, August 4. The corporations under indictment are:

Standard Oil Company (Indiana), Socony-Vacuum Oil Company, Inc., Cities Service Oil Company, Continental Oil Company, Gulf Oil Corporation, The Pure Oil Company, Shell Petroleum Corporation, Sinclair Refining Company, The Texas Company, Tide Water Oil Company, Mid-Continent Petroleum Corporation, Phillips Petroleum Company, Skelly Oil Company, Barnsdall Refining Corporation, Globe Oil & Refining Company (listed at four addresses) Deep Rock Oil Corporation.

Subsidiary concerns were listed as: Cities Service Export Oil Company, Empire Oil & Refining Company, Louisiana Oil Refining Corporation and Wadhams Oil Company.

The Journal of Commerce Publishing Company, Chicago, the W. C. Platt Company and the National Petroleum Publishing Company, Cleveland, Ohio, were the publications to come under the indictment.

Names of the individuals made public are: E. G. Seubert, president, Allan Jackson and E. J. Bullock, vice presidents, and Ira A. Smith, Tulsa, buyer, Standard Oil Company (Indiana); John A. Brown, president, Charles L. Jones and Charles E. Arnott, vice presidents, Socony-Vacuum Oil Company, Inc. H. T. Ashton, manager Lubrite division of Socony-Vacuum Oil Company St. Louis; R. R. Irwin, manager White Eagle division Socony-Vacuum Oil Company, Inc., Kansas City; Bryan S. Reed, Chicago manager of Socony-Vacuum Oil Company; A. G. Maguire, manager Wadhams Oil Company, Milwaukee; Frank R. Coates, vice president, Cities Service Oil Company; Harry D. Frueauff, vice president, Cities Service Oil Company; H. E. Brandli, vice president, Cities Service Export Oil Company; O. J. Tuttle, Tulsa, manager Empire Oil & Refining Company; D. W. Harris, Shreveport, manager Louisiana Oil Refining Corporation; D. J. Moran, president Continental Oil Company; Harry J. Kennedy, Ponca City, vice president of Continental Oil Company; E. J. Karstedt, vice president (retired) Continental Oil Company; L. T. Cramer, buyer for Continental Oil Company, Ponca City.

J. F. Frake, president Gulf Oil Corporation, Pittsburgh; William V. Hartman, Pittsburgh, vice president Gulf Oil Corporation; H. C. Meyer, Pittsburgh, sales manager Gulf Oil Corporation, Pittsburgh; O. H. Carlisle, district sales manager Gulf Oil Corporation, Houston; Henry M. Dawes, president The Pure Oil Company, Chicago; C. W. Watson and R. H. McElroy, Chicago, vice presidents The Pure Oil Company; Dewey K. Chamberlain, manager The Pure Oil Company, Tulsa; R. G. A. van der Woude, president, Shell-Union Oil Company, New York; Alexander Fraser, president, Shell Petroleum Corporation, St. Louis; P. E. Lakin, sales manager, Shell Petroleum Corporation, St. Louis, E. W. Sinclair, president, Sinclair Refining Company, New York; J. W. Carnes, vice president, Sinclair Refining Company, New York; W. S. S. Rogers, president, The Texas Company, New York; H. W. Dodge, vice president, The Texas Company, New York; P. C. Scullin, manager, Indian Refining Company, Houston; E. L. Shea, New York, president Tide Water Oil Company; Noel Robinson, New York, vice president, Tide Water Oil Company; J. W. Warner, manager, Tide Water Oil Company, Tulsa; R. O. Audrain, Tulsa, buyer for Tide Water Oil Company.

Jacob France, Baltimore, president Mid-Continent Petroleum Corporation; R. W. McDowell, Tulsa, vice president, Mid-Continent Petroleum Corporation; Thomas Fitzgerald, Tulsa, assistant to the vice president of Mid-Continent Petroleum Corporation; Frank Phillips, Bartlesville, president Phillips Petroleum Company; H. E. Koopman, Bartlesville, vice president, Phillips Petroleum Company; A. M. Hughes, Bartlesville, general sales manager, Phillips Petroleum Company; W. G. Skelly, Tulsa, president Skelly Oil Company; James Nagle, Tulsa, sales manager Skelly Oil Company; E. B. Reeser, Tulsa, president Barnsdall Oil Company; I. A. O'Shaughnessy, Minneapolis, president Globe Oil & Refining Company; B. L. Majewski, Chicago, vice president, Deep Rock Oil Corporation; Keith Fanshier, Chicago, petroleum editor, Chicago Journal of Commerce; Warren C. Platt, Cleveland, president National Petroleum Publishing Company; C. M. Boggs, Arkansas City, Kansas, president Western Petroleum Refiners Association; A. V. Bourque, Tulsa, secretary, Western Petroleum Refiners Association.

Results Favorable

[*Continued from page 14*]

stocks of all oils during the past decade resulted largely from additions to crude stocks prior to 1930 and subsequent withdrawals from those stocks. Thus crude stocks today are the lowest for about a decade. During July there was a continuation of the long-sustained decline in crude storage, and the total came down to a new low mark for the year and for the seven-year decrease. As of July 25, the total stocks of crude were estimated by the Bureau of Mines at 306,968,000 barrels. That estimate indicated that the steady withdrawals from crude storage during July amounted to approximately 4,000,000 barrels.

Gasoline Inventories Reduced

Although refineries were consuming the current output of wells and also substantial quantities of crude from the storage tanks, the output of the plants still was under the market requirements during July, and the rest of the demand was met by taking refined products out of storage. Weekly reports of the American Petroleum Institute indicate that the drain on finished gasoline storage amounted to more than 3,000,000 barrels. Reports to the Institute showed that the reporting companies held 53,222,000 barrels of finished gasoline on August 1, compared with 55,907,000 barrels July 4 and 57,263,00 barrels June 27. The August 1 total indicated a reduction of about 10,000,000 barrels from the all time peak of March 21.

The finished gasoline stocks at the end of July were about 12 percent higher than at the corresponding time a year ago. That increase in storage was partially but not entirely justified by the gain that has occurred in gasoline consumption. In the first five months of 1936 the domestic demand for gasoline ran 9 percent higher than in the similar period last year. In May, 1936, the demand was 8 percent higher than in May, 1935.

Drilling Decrease Beneficial

The 6 percent decrease in drilling in July, as compared with June, was a beneficial development. In some recent months new wells have added to the difficulty of properly holding down crude production. Furthermore, prior to July, well completions had been more numerous than justified by the increases in petroleum consumption and in crude production. For the first 7 months of 1936, well completions have been 14 percent more numerous than in the similar period of 1935; while as previously stated, petroleum demand has increased less than 11 percent and crude production has advanced about 12 percent.

During the initial 7 months of 1936 well completions in the United States totaled 13,472, compared with 11,833 in the similar period last year. If this 14 percent increase in drilling is maintained until the end of the year, the

total completions in 1936 will be about 23,500 wells, the most since 1929.

In July as in earlier months of the year, several states and districts showed unusually high rates of drilling. Those especially active areas include New Mexico, North Louisiana, West Texas, South Texas, and Michigan. In each of those districts there have been about twice as many well completions in the first seven months of 1936 as in the similar period last year.

But most other states and districts of the country also have shown increased field activity, although the gains have been smaller. Completions have been around 25 percent higher this year than last year in Oklahoma, Kansas, and the Eastern States; while smaller increases have occurred for Texas as a whole, California, South Louisiana, Montana, Wyoming, East Central Texas, the Texas Gulf Coast, the Texas Panhandle, and West Central Texas. Colorado has had the same number of new wells this year as up to this time last year.

There has been less drilling in the initial 7 months this year than last year in Arkansas, the Southeastern States, North Texas, and East Texas. In the East Texas field there have been 1734 wells drilled, or 38 percent less than the 2815 completed up to this time last year.

LOUISIANA LAW

Incorporates number of proved rules

AUSTIN.

IF the next Texas legislature should decide that Texas conservation' laws need re-writing, a model is ready at hand: The new Louisiana conservation law.

State's attorneys in Austin this week read with unusual interest copies of the new Louisiana law, which became effective last week. They found it incorporated virtually all the proved policies of the Texas law—and a lot of policies not yet adopted by the Texas conservation authorities although those policies had been sanctioned in part by the Texas courts.

Of chief interest to Texas was the incorporation into the Louisiana law of the opinion of the Texas Supreme Court in the case of C. H. Brown v. Humble Oil & Refining Company.

That principle, as generally quoted, is that the operator of an oil producing property is entitled to the opportunity to produce his fair share of the mineral in place—and no more. Almost those words are used in the Louisiana law, although the principle has not been accepted by Texas conservation authorities.

The Louisiana law says that in determining a per well allowable, the Commissioner of Conservation shall give due consideration to a well's productivity, etc., and to acreage. Consideration of surface acreage is essential to any practical application of the Brown case opinion. Then the law continues: "Such allowable shall afford to the producer of each property in a common source of supply the opportunity to produce his just and equitable share of the oil, so far as can be done without waste, and for this purpose to use his equitable share of the reservoir energy."

To take care of the owner of a small tract, unitization is provided—voluntary if the small tract owner consents, otherwise compulsory under the commissioner's direction. The saving clause is inserted that no man shall be denied the right to drill his property, no matter how small or odd-shaped; but again the Brown case is applied, and almost in the language of the opinion: "The allowable production (of the tract which varies from the spacing pattern) as compared with that of a full unit, shall be in the ratio of such tract to the area of the full unit."

The next most interesting use of Texas law is the adaption of the tender law and the hot oil confiscation law into a single paragraph of the Louisiana enactment:

"Section 14: All persons, firms, etc., including common carriers, are prohibited from transporting . . . oil, gas or sulphur produced in violation of this act or rule of the commissioner . . . . Oil produced in violation of this act shall be contraband and subject to seizure and sale. Title to the amount sold shall pass as of the date of seizure." (Paragraph quoted only in part).

The last sentence would seem to be aimed at a fundamental defect of the Texas confiscation law, that of the state obtaining a title. The Louisiana law would seem to place the burden of proving title upon the person possessing the oil just prior to seizure, while in Texas the state's inability to show a clear title has considerably hampered enforcement of the act.

The Louisiana law has elaborate provisions seemingly intended to minimize legislation. All orders of the commissioner of conservation shall remain in effect until set aside by an "unappealable" verdict. In other words, the mere appeal from a lower court injunction by the state, would have the effect of setting aside that injunction. Moreover, the court issuing an injunction must show in the judgment exactly what damages would result should the order complained of be allowed to remain in effect. This apparently was designed to make the lower court more careful about reckless use of the power of injunction.

OUTPUT UP

Natural gasoline in June at 4,504,000 gallons day

WASHINGTON, D. C.

NATURAL gasoline production in June totaled 135,114,000 gallons, more than two million gallons under the May output of 137,550,000 gallons, but daily average production showed an increase of 67,000 gallons to 4,504,000 gallons, according to figures made public August 7 by the Bureau of Mines.

The month was marked by the achievement of a new high record for the East Texas field with a daily average of 404,700 gallons against 380,900 gallons in May. A general increase was noted in the California production, while that of Oklahoma showed no change.

Total natural gasoline production for the first half of the current year was 839,328,000 gallons, an increase of seven percent over the 782,411,000 gallons produced in the corresponding period last year, the bureau reported. Stocks June 30 included 119,952,000 gallons at refineries, against 114,156,000 gallons on May 31, and 124,866,000 gallons at plants and terminals against 123,732,000 gallons, it was stated.

NEW GAS SYSTEM

Expected to balance Texas output

AUSTIN.

HOW the new system of bookkeeping on gas production in Texas automatically balances out over- and underproduction of each well and each field was explained here by A. M. Crowell, chief gas engineer for the Texas Railroad Commission.

The new system was instituted with the August gas proration order, under a requirement of the gas waste law that the allowable shall be adjusted on the basis of actual production.

The ultimate aim of the plan is to credit under-production to a well, and debit over-production. This requires a rather extensive bookkeeping system on each well.

Crowell's explanation was in the form of examples, the first a field, then a well.

In the hypothetical field, the allowable fixed in January was 450,000 MCF daily. This was the amount nominated. But the take was 130,550 MCF below that amount.

In February, the nomination was 425,000 MCF and the take 317,575 MCF, accounting for another underage, this time of 111,243 MCF.

In March, the charge-back system starts working. Nominations for March totaled 430,000 MCF; but from this figure was subtracted the January underage of 130,550 barrels, leaving a "net nomination" of 299,450 MCF as the field allowable. This month, the take exceeded the allowable by 2050 MCF.

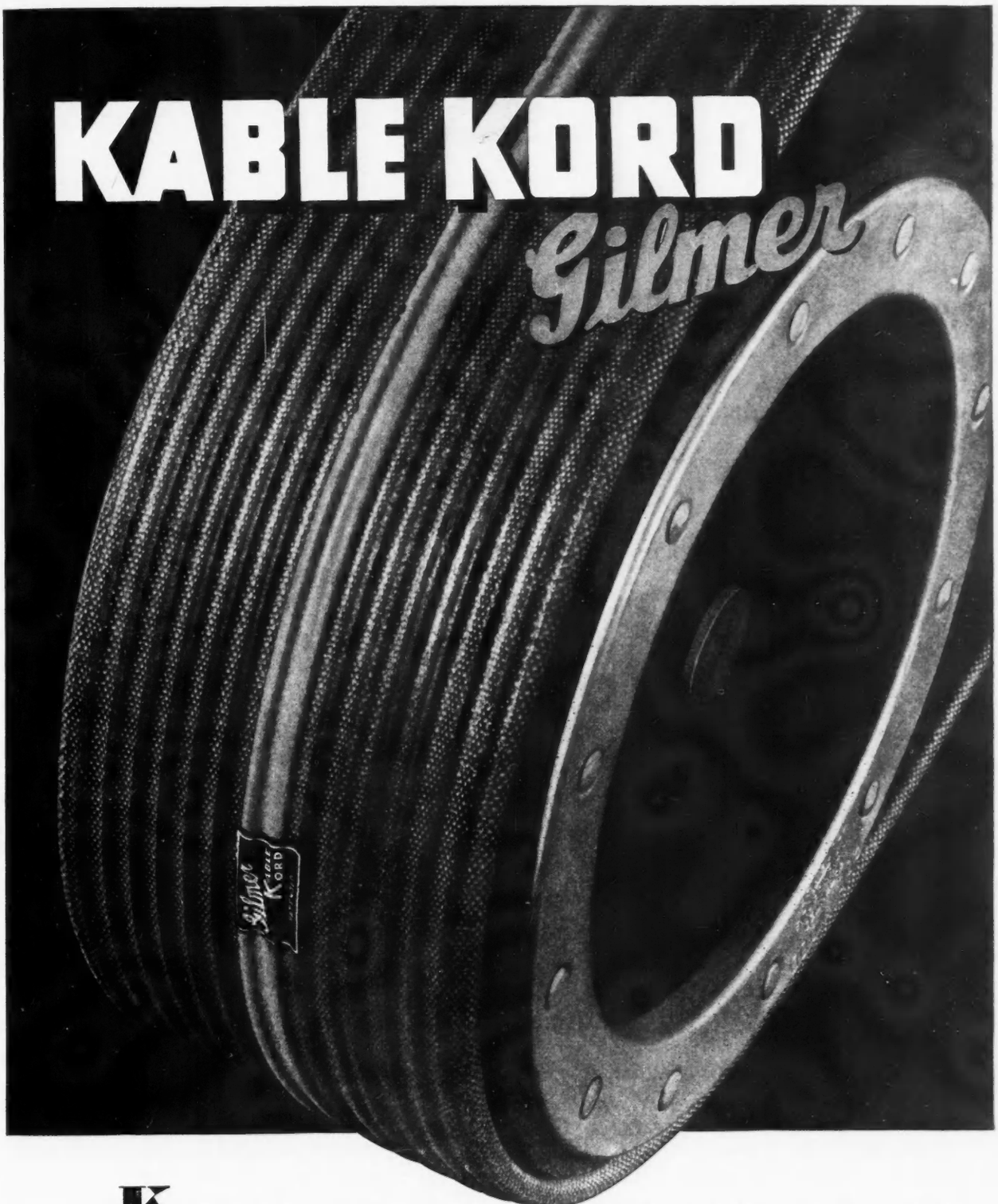
In April, the February underage was subtracted from the nominations of 400,000 MCF, leaving an allowable of 288,757 MCF. Production this month was 6544 MCF in excess of allowable.

In May, nominations totaled 300,000 MCF, and the first addition is made—of the March overage of 2050 MCF, making the allowable 302,050. Similarly, the June nominations of 200,000 MCF are augmented by the April overage of 6544 MCF, bringing allowable to 206,544 MCF.

Thus it is apparent that over a period of months, the overage and underage automatically checks out and balances.

On an almost identical basis, per well allowables are figured. Taking a well in the hypothetical field with an allowable of 5050 MCF in January, and a take of 4801 MCF, it establishes a credit of 381 MCF. In February, another credit of 381 MCF is established; then in March, the adjustment begins. The allowable in March was 4835 MCF for this well. Adding January's credit gives a "net allowable" of 5084 MCF for March.

But in March, the well establishes a



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Of course your Honor is a fair-minded man, but your Power Company shall make no attempt to warp your judgement with eloquent generalities. Engineers will present FACTS. Just FACTS!

The witness is called? Thank you, Sir. That's all in the world we ask!

PURCHASED ELECTRIC POWER

PETROLEUM ELECTRIC POWER CLUB

debit by producing 5114 MCF, or 30 MCF excess. In April, the February debit is taken up; then in May, the March debit is subtracted from the well allowable.

MAKE CHANGE

Ohio acquires assets of Marathon, a subsidiary

Tulsa.—Monday, August 3, Ohio Oil Company, of Findlay, Ohio, acquired all assets of its wholly-owned subsidiary, Marathon Oil Company, operating in Oklahoma and other Mid-Continent states. Announcement came from President O. D. Donnell and A. M. Gee, general counsel. W. W. Fleming, who was president of Marathon Oil Company, is a vice president and director of Ohio Oil Company, and continues to manage the Ohio's properties in the Mid-Continent district. Acquisition of the Marathon was in keeping with a plan of Ohio Oil Company to take over all its owned subsidiaries. Some months ago it acted similarly with Lincoln Oil Refining Company.

60-MILE GAS LINE

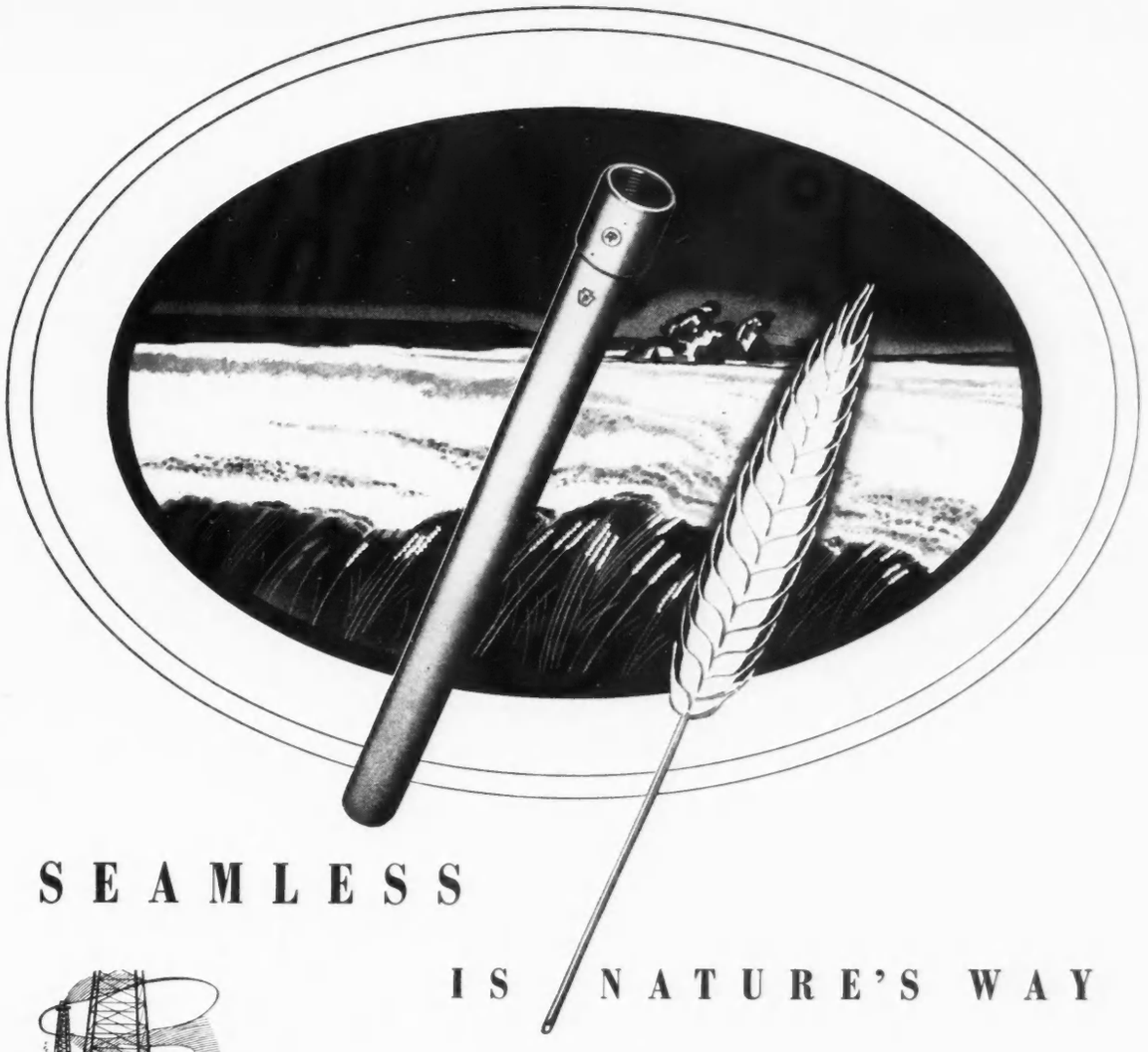
Buffalo, N. Y.—Penn-York Natural Gas Corporation, unit of the Cities Service Company, is preparing to launch a major pipe line construction project in expanding its natural gas transmission facilities in northwestern Pennsylvania and western New York. The company has canvassed leading pipe line construction contractors to make bids for the immediate building of 60 miles of 10-inch welded line from Harrison Township, Pennsylvania, in a northwestern direction to a junction point near Arcade Center, a hamlet in western Young County, New York. From the latter point 44 miles of eight-inch line will be built in a westerly direction, then 35 miles of similar sized pipe in a northwesterly direction. This project involves a total of 139 miles of trunk line.

The company is also reported to be contemplating the early construction of a 110-mile 12-inch line in northwestern New York.

George M. Merrill is chief engineer for Penn-York Natural Gas Corporation, with headquarters at Buffalo.

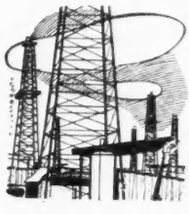
CUT NORTH TEXAS

Wichita Falls.—More severe production restrictions for non-marginal wells in North Texas district were placed into effect August 1 by the railroad commission in order to keep the output of the district within its quota of 59,380 barrels daily, with an additional allowable of 5000 barrels daily assigned to Foard County's deep wells. The proration factor was lowered from 15 percent to 11 percent of the excess potential after deducting for marginal well allowance. Limitations on potentials of wells remain in effect. Under the new schedule a shallow well rated at 300 barrels potential is automatically assigned a 10-barrel marginal allowance, plus 31.9 barrels earned from 11 percent of the 290-barrel excess, or a total allowable of 42.9 barrels daily.



SEAMLESS

IS NATURE'S WAY



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Gauges Are Taken

ON BIG WELLS IN CRESCENT, MOORE, EDMOND FIELDS

WEEKLY STAFF REPORT

Oklahoma City.—Interest in the Oklahoma City district centered mostly upon potential gauges taken of large wells. The Moore, Crescent and Edmond fields featured in this work.

Sinclair Prairie Oil Company et al's Peaches 1, NE SE NW 21-10n-2w, one of the largest producers in the Moore pool of Cleveland County, has been given a new 24-hour potential of 30,298 barrels of oil. The well made 1558 barrels of oil and 42,800,000 cubic feet of gas the first hour; 1340 barrels of oil and 35,200,000 cubic feet of gas the second hour; 1282 barrels of oil and 35,200,000 cubic feet of gas the third hour, and 1282 barrels of oil and 32,000,000 cubic feet of gas the fourth hour.

Carter Oil Company's Walker 2, SW NE NE 33-17n-4w, in the Crescent pool of Logan County, was given a 24-hour potential of 36,110 barrels of oil, making it the second largest well in the state. It it a Wilcox sand producer at 6247 feet. It had the top of the second Wilcox sand at 6173 feet. During a four-hour test, the well flowed 2165 barrels the first hour; 1537 barrels the second hour; 1541 barrels the third hour, and 1497 barrels of oil the fourth hour, with an estimated 4,000,000 cubic feet of gas. The largest well in the state was also a Crescent pool well, Carter Oil Company's Miller 2, SW NE SE 28-17n-4w, which was given a potential of 51,594 barrels of oil from the Wilcox sand.

Carter Oil Company and Gulf Oil Corporation's Walker 3, NW NE NE 33-17n-4w, another Crescent well being carried to the second Wilcox sand, is to be completed under pressure, the same method employed on the big producers in the Oklahoma City field. It is drilling below 6100 feet.

The Edmond pool, Oklahoma County, came in for its share of attention when Ohio Oil Company's (Marathon) Messer 2, NW SW SW 32-14n-2w, was opened and made 570 barrels of oil during the first hour, 285 barrels the second hour, 228 barrels the third, 213 barrels the fourth, and 229 barrels of oil the fifth hour. Production is coming from a total depth of 6702 feet in the Wilcox sand, which was topped at 6637 feet.

The hope that the north and south areas of the Britton pool of Oklahoma County might be connected was dimmed during the past week by the disappointing shows had at Sinclair Prairie Oil Company et al's Kindblade 1, SE NE SW 17-13n-3w. The well had water in the Wilcox sand from 6690 to 6694 feet. Plugged back to 6679 feet and acidized, the well is now averaging about ten barrels of oil per hour with an estimated 6,000,000 cubic feet of gas daily, with no water.

Slick-Urschel et al's Mecker 2, NE NW NW 29-13n-3w, one of the two most important tests in the northwest part of the county, cored saturated Wilcox sand from 6804 to 6811 feet, but when bailed had only a small show. The other test is Ohio Oil Company and Gulf Oil Corporation's Hathaway 2, SE NE NW 6-13n-3w, on the southwest edge of the Edmond field, which was acidized with 3000 gallons at a total depth of 6680 feet in lime and dolomite, but showed for about 1,500,000 cubic feet of gas. It was being rigged up to deepen.

A show of oil was had at Stanolind Oil & Gas Company's Johnson 1, NWc SE 20-18n-4w, in the West Lovell pool of Logan County. The show was had while the well was drilling at 6130 feet in the Wilcox sand. Blackwell Oil & Gas Company's Davis 1, NWc 20-18n-4w, one-half mile to the northwest, was drilling at 6040 feet in the Mississippi lime.

Most disappointing word from the mansion drilling zone of the Oklahoma City oil field was the indicated failure of I. A. O'Shaugnessy's Berlowitz 1, SE SW NE 9-12n-3w. The well, located a mile and one-quarter northwest of the mansion sector proper, had salt water in the hole at 6818 feet. Top of the Wilcox sand was found at 6808 feet. Drilling was going ahead below 6800 feet, but in the opinion of many, it will be abandoned as a dry hole.

As for the rest of the Oklahoma City field, only 27 wells were active in the north extension. Phillips Petroleum Company's Gast 1, at Eighteenth street and Kelley avenue, was given a potential of 893.70 barrels of oil from a total depth of 6375 feet, in a green shale, having picked up only a thin section of the Wilcox sand. Gas production was rated at 18,000,000 cubic feet daily.

Another potential was completed in the field at Sunray Oil Company and Phillips Petroleum Company's State 7, on the grounds of the state capitol. Near Northeast Twenty-second street and Phillips avenue, the well was rated at 13,724 barrels of oil and 21,000,000 cubic feet of gas daily.

Fitts Active

DISTRICT HAS 72 DRILLING OPERATIONS UNDER WAY

Tulsa.—The Fitts area of Pontotoc County continued to be active with more than 72 active tests making hole, 9 of which were in the Jesse pool, aggressive neighbor to the southeast of the Fitts field.

Latest producer in the Fitts pool is E. H. Moore et al's Atkins 4-A, SE NW NW 32-2n-7e, which drilled to 4350 feet, and flowed 528 barrels of oil the first hour. It flowed 717 barrels the second hour and 772 barrels the third hour, with gas production estimated at 6,000,000 cubic feet per day. The 24-hour potential was 4825 barrels of oil. The Wilcox sand was topped at 4303 feet and operators were to run tubing and make a test. The same interest's Mack 9, NE SE SE 28-2n-7e, topped the Wilcox sand at 4430 feet and after drilling to 4444 feet, was plugged back to 4380 feet where it flowed 34 barrels of oil in 24 hours on gas lift.

Blackstock Oil Company's Harden 4-A, SEc NW 30-2n-7e, topped the Hunton lime at 3340 feet; the Sylvan shale at 3611 feet, and ran seven-inch casing to 3621 feet. After 2½-inch tubing was set at 3279 feet, the well was acidized with 8000 gallons and flowed 254 barrels of oil in the first hour through casing; the second hour it flowed 153 barrels of oil through tubing and 182 barrels the third hour through tubing.

Magnolia Petroleum Company's Norris 3, NW SW SE 21-2n-7e, topped the first sand at 4335 feet, and from 4355 feet flowed 533 barrels of oil in four hours through tubing. The 24-hour potential on the well was 3199 barrels of oil, which was accompanied by 2,405,000 cubic feet of gas. Sinclair Prairie Oil Company's Burris 7, SWc NE NW 27-2n-7e, acidized the Hunton lime at 3372 feet with 8000 gallons and flowed 219 barrels of oil the first hour through tubing and 427 barrels of oil the second hour through casing.

Phillips Petroleum Company's Eberle 1, NEc SW 12-5n-9e, in Hughes County, topped the second Wilcox sand at 5732 feet, and had the first water in the hole at 5741 feet. The hole was still full of water at a total depth of 5744 feet, and operators were preparing to plug and abandon..

Wood Oil Company's Central Life Insurance Company 1, SE NW SW 2-6n-6e, in southern Seminole County, drilled in sand from 2765 to 2790 feet, and had a very small show of oil. After drilling ahead to 2955 feet in broken sand with no show, the well was shut down, and operators will plug the well.

Carter Oil Company's Aldrich 5, NEc 35-11n-6e, in the Keokuk pool of Seminole County was a location. Carter's S.

THE USE OF EXPLOSIVES IN PROSPECTING FOR OIL

The Last Word

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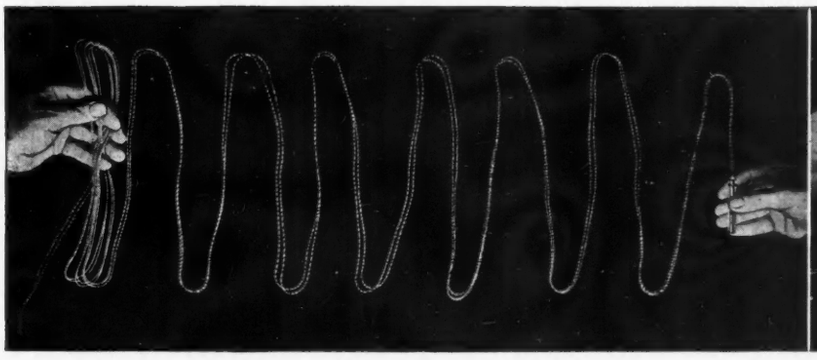

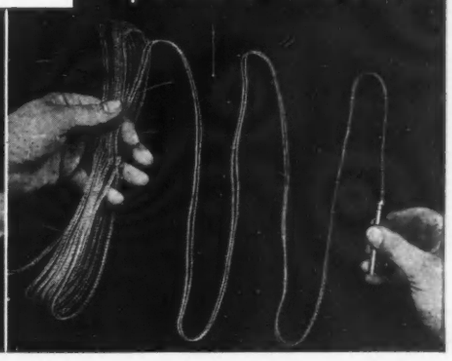

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ATLAS

EXPLOSIVES

CHEMICALS ATLAS EXPLOSIVES

W. Anthony 1, C W½ SW NE 11-10n-6e, drilled to 4159 feet in the Hunton lime and Messer formation, and swabbed 80 barrels of oil in two hours through casing.

In the Clarita area of Coal County, routine drilling was being carried ahead. Continental Oil Company's King 1, NE SW NE 26-1n-8e, was drilling at 3035 feet in shale. Sinclair Prairie Oil Company's Culver 1, NEc SW 16-1n-8e, was drilling at 3697 feet in shale and lime. Carter Oil Company's James 1, SW NW SW 35-1s-8e, topped the McLish sand at 3414 feet and after coring from 3765 to 3780 feet, the total depth, recovered dense lime showing salty sulphur water. Top of the Wilcox sand was found at 3773 feet, and operators were to plug back and run seven-inch casing to 2905 feet and test the Viola lime.

Mid-Continent Petroleum Corporation and The Texas Company's Hillman 3, SW SE NE 29-13n-6e, in the Laffoon pool of Lincoln County, topped the Wilcox sand at 4456 feet and drilled to 4468 feet where it had a show of oil and water. Operators cemented at 4450 feet and were bailing.

The Claremore pool of Rogers County was given another extension when Messler Oil Company's Monroe 3, 18-21n-16e, picked up the break at 743 to 751 feet and filled 150 feet with oil. It is rated as being good for 75 barrels of oil daily, but will be acidized before it is completed.

Leonard et al's Griesel 1, NEc 20-16n-18e, near Tullahassee in Wagoner County, had showings of gas in three different sands, but drilled into salt water at 1060 feet and has been abandoned. Shell Petroleum Corporation's Illinois Bankers Life Insurance Company 1, NW SE NE 10-2s-7e, in eastern Johnston County, has been abandoned at 2100 feet after getting 75 barrels of salt and sulphur water a day. Upper horizons through which the well drilled showed a little gas.

OKLAHOMA
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CARTER COUNTY—		
Louis Sykes, Brady 2, nw se sw 19-1s-2w	15	1404
Upham, Hooks 3, sw nw sw 14-1s-3w	lcn.	abd.
Cox & Hamon, Wesley 25, ne sw sw 3-4s-3w	20	1060
Shell, McClure 42, nw ne sw 5-4s-3w	7	1140
COTTON COUNTY—		
Shasta Oil, Moore I-A, nw sw sw 2-2s-10w	*	2306
CREEK COUNTY—		
Jackson, Eufaula 5, cne nw 5-18n-11e	lcn.	abd.
Bruin Oil, Morton 1, nw nw se 27-14n-10e	50	2696
Sinclair Prairie, Jones 17, se se nw 3-17n-7e (otd 2497)	75	2564
Acid Oil, Deere 2, cnl se nw 7-17n-7e	120	2408
Sinclair Prairie, Litchfield 38, sw sw nw 22-17n-7e (pb 2903)	4	2905
L. B. Jackson, Nolan "A" 2, ne ne ne 2-17n-8e	100	1618
GARVIN COUNTY—		
McElreath & Suggett, Lasater 1, se se sw 2-2n-1w	*	5065
JACKSON COUNTY—		
Gulf Oil, Edwards 3, nw ne se 3-1n-20w	34	1536
Gulf Oil, Ellis 1, ne sw ne 6-1s-19w	2400	2632
Ben Russell, Daniel 1, nw ne se 13-3n-20w	*	1482
KAY COUNTY—		
Shell & Continental, Bechtel 6, ne se sw 5-28n-1w (otd 2376)	311	2780
LOGAN COUNTY—		
Carter & Gulf, Miller 2, sw ne se 28-17n-4w	¶77-51,593	6324
MUSKOGEE COUNTY—		
Folk, McIntosh 3, cel nw se 17-14n-17e	*	2128
OKFUSKEE COUNTY—		
Manahan Oil, Dolton 9, nw ne se 36-10n-8e	150	1737
Arrow Drlg., Sango 1-A, csw se 20-10n-9e (pb 3250)	*	4001
OKLAHOMA COUNTY—		
Barnsdall, Guthrie 2, nw sw se 15-12n-3w	¶2-157	6465
Mariposa 2, sw nw nw 26-12n-3w	¶12½-10,045	6416
British-American, Baird 1, nw ne nw 26-12n-3w	480	6504
Skelly Oil, Gast 1, nw se nw 26-12n 3w	¶2-1440	6440
Larkin & Warr, Nichols 1, ne ne ne 27-12n-3w	lcn.	abd.
Clinkscales & Brown, Myers 1, nw se se 17-13n-3w	21	6636
Pure Oil, Malm 9, se nw sw 30-14n-3w	¶3½-1711	6707
Continental, Young 9, se nw nw 31-14n-3w	6359	6705
OKMULGEE COUNTY—		
Ford, Hardridge 4, csl n½ se 14-13n-12e	*	2102
Blaise, Fox 25, se se nw 22-13n-14e	5	1825
English & Hendricks, Colbert 4, se nw ne 15-14n-14e (pb 1150)	4	1860
Ladd, Scott 2-A, se ne se 15-15n-14e	*	1765
OSAGE COUNTY—		
Midco Oil, 1-A, sw sw sw 17-22n-10e	30	2000
Pittigrove, 7, cw½ w½ se 11-23n-11e	5	1536
Phillips Pet., Lookout 1, se se nw 9-24n-7e	200	2645
Lewis & Continental, 14, se nw sw 16-24n-7e	169	2645
Sinclair Prairie, 2, se se sw 9-25n-6e (pb 2792)	3	2793
Champlin Ref., 3, sw se ne 22-25n-6e	*	2888
Lewis Prod., 4, se sw sw 23-26n-6e	988	2927
Kewanee O&G, Blaine 2, nw nw se 23-26n-6e	lcn.	abd.
Skelly, Smith 5, ne nw nw 26-26n-6e	2928	2927
Kewanee O&G, Renald 8, se nw sw 26-26n-6e	lcn.	abd.
Phillips Pet., Sanson 2, se se ne 27-26n-6e	117	2942
PAYNE COUNTY—		
T. J. Hughes, Powers 2, sw sw nw 10-18n-5e (otd 2918) (pb 2700)	*	3655
Amerada-Stanolind, Pratt 1, se se se 29-19n-5e	100	3802
PITTSBURG COUNTY—		
Choctaw, Bunyard 2, sw sw ne 18-7n-18e	¶2¾	2066
PONTOTOC COUNTY—		
Continental, Simpson 3, nw sw ne 12-1n-7e (pb 4711)	¶¼-70	4741
Magnolia, Woolley 4, se se se 21-2n-7e	¶3-3215	4290
Sinclair Prairie, Woolley 1, sw sw sw 22-2n-7e	¶2½-3397	4348
Woolley 2, se se sw 22-2n-7e	¶3¼-3050	4350
Moore, Moody 1-A, nw nw nw 26-2n-7e	720	3780
Magnolia, Metropolitan Life 15, nw ne ne 27-2n-7e	¶2¾-4344	3755
Samidan Oil, Bates 1, nw se ne 27-2n-7e	¶2½-3659	4220
Simpson, Westheimer 1-A, se ne ne 27-2n-7e	¶3-5436	3714
Moore, Patrick 2-A, ne nw ne 31-2n-7e	¶2-4977	4375
Mid-Texas, Harbet 2, sw sw se 30-5n-4e	lcn.	abd.
Small Oil, Robertson 22, sw nw se 23-5n-8e	5	782
POTTAWATOMIE COUNTY—		
Mohawk Oil, Greenlee 3, sw se sw 26-6n-4e	10	2904
Magnolia, Denton 1, ne nw sw 22-7n-4e (otd 3650) (4209)	30	4214
SEMINOLE COUNTY—		
The Texas Co., Steward 4, ne ne sw 19-9n-7e (pb 3393)	*	3475
Vierson, Jones "A" 4, se sw nw 11-6n-6e	lcn.	abd.
I.T.I.O., Nity 5, sw ne ne 2-7n-6e (otd 4116) (pb 4130)	12	4132
Magnolia, Dindy 1, ne se nw 11-7n-6e (otd 4142)	557	4201
I.T.I.O., Goodin 3, sw ne ne 23-9n-6e (pb 4085)	25	4203
9n-7e	¶16-624	3483
Youngblood, Sandridge 1, se se ne 19-9n-7e	*	1928
Carter Oil, Browning 2, cw½ sw sw 14-10n-6e	490	4268
Arkansas Royalty, Kiker 1, se se ne 9-10n-7e	*	4545
TULSA COUNTY—		
Boyd, Carr 1-A, ne ne ne 23-18n-14e	15	1362

*Failures; †Junked; ¶Million cu. ft. gas.

WELL AT TULSA
Small gas well is within the city limits

Tulsa.—A wildcat within the city limits of Tulsa during the past week scratched its way down 1071 feet into the ground and came in to produce approximately 500,000 cubic feet of gas at 1071 feet.

The well is George A. McConnell et al's McGraw & Markham estate 1, in Section 11-19n-12e, due north of the Twenty-first street bridge and east of Maybelle avenue in West Tulsa. Completed at 1071 feet in the Perryman sand, the well has a rock pressure of 400 pounds, and casing was pushed out of the hole before it could be shut in.

The gas is ready for marketing, and a 2000-foot line has been started, through which the gas will be taken. A small amount of oil was taken from the gas production and tested 39 gravity. The lease where the potential gas field has been discovered comprises an area of 147 to 150 acres and is beyond the boundaries of the city, but is surrounded by city land.

On land formerly owned by Continental Oil Company, the property is now owned by the estates of J. J. McGraw and John H. Markham, Jr.

Second test for the immediate area is planned to be started on the grounds of Whoopee Manufacturing Company, and will be for both gas and oil, which authorities say should be picked up between 2000 and 2200 feet. Two other tests have also been planned for the region, in which a big gas well was drilled in 1902 by Chesley and Russell, on what is now the grounds of The Texas Company tank farm.

Not to be outdone by the Tulsa wildcat, Vinita also had one, another gasser, which was brought in August 1. The well is Peterson & Miller's Bagley 1, C NW SW 24-25n-20e, just 1½ miles east of the Vinita business center. It tested 180 pounds rock pressure, and produced an estimated 2,347,000 cubic feet of gas after drilling to a total depth of only 423 feet, 1½ feet into the Wilcox sand. This is apparently the first commercial gas well in Craig County producing from the Wilcox.

The conviction that something is bound to show up in the area around Clarita, in Coal County, was further evidenced during the past week when locations for two more tests in the sector were made. They were Continental Oil Company's Kirby 1, SW SE SW 23-1n-8e, and the same interest's Breedlove 1, NW SW SW 24-1n-8e. These locations are in a direct southeast line with Carter Oil Company's Warne 1, NEc NW 31-3n-9e, latest test for the Centrahoma structure of Coal County, which is digging cellar.

Sad news came from Garvin County when McElreath & Suggett's Lassater 1, SEC SW 2-2n-1w, was dry and abandoned at 5065 feet, having been carried 65 feet below the contract depth. This well topped the Wilcox sand at 4908 feet, but it was white and dry and the operators have given it up as another of the many disappointments which the wildcatter must face.

Deep Drilling

SUCCESS IN CRESCENT AND CEMENT CLOSELY FOLLOWED

Tulsa.—Development of deep production in Crescent pool of Logan County, and in the Cement pool of Caddo County, Oklahoma, is being closely followed by Mid-Continent operators in general, as well as by those operators directly interested in the two areas. In Cement pool, production has been found in sand below 6300 feet, approximately 4000 feet beneath the Fortuna sand, the discovery stratum of the pool. Present indications would point to most of the deeper extensions being to the west center of the upper production, with the probabilities of heavy gas production on the east side from the lower horizons. Crescent pool of Logan County, is being developed in the second Wilcox, where prolific production has been encountered. Water has not been indicated in the present development as being a determining factor in extension of the deeper pay of either of the areas.

Cement

Production in Cement pool was proved in the Fortuna sands in 1917, when Fortuna Oil Company's test 31-6n-9w, made 35,000,000 cubic feet of gas from 2340 feet. Subsequent drilling developed production at five depths ranging from 1850 feet to 2800 feet, each being a member of Permian formation. In 1930, Noble and Olson drilled to the 3300-foot mark at NW SE SE 36-6-10w, to obtain an initial production of 100 barrels per day and to prove the strata which since has been developed as the most productive horizon of the pool.

Marathon Oil Company and Ramsey Petroleum Company's Marchand 4, SW SE NW 2-5n-9w, which was drilled into sand at 6285 to 6367 feet, during the last week in May of this year, proved deeper pay than had previously been found. At present this well is the only producer in this lower sand, although Marathon Oil Company's Wade 10, NW NE SW 2-5-9w, is drilling near the 5300-foot mark.

Marchand 4 made an initial production of 442 barrels of oil through casing in a nine hour test, and 50,000,000 cubic feet of gas. Unless this test encounters production in the sand at 5400 feet, it will probably be carried to the 6300-foot level, and will aid in determining possibilities of production from the deeper horizon and at the same time give enlightenment to the prevalent theory that Marchand 4 is not well located structurally.

With deeper pay possible, and extensive testing of the deeper sands certain, a number of tests may be expected in the area. Since the shallow wells are still producing the new wells will be drilled from the surface. Some of the older locations may be deepened, although in many of these pump iron and other bottom-hole accumulation present problems to deepening.

Geologically, the Cement area presents an unusual problem to the operator. Sands of the region are non-continuous. Although a careful study has been made of the well logs, they have not been correlated to other occurrences. The east side of the pool apparently carries the greater gas volumes, and the opinion has been expressed that the deeper production will be found west of the present center of production.

The most recent completion in the pool is Magnolia Petroleum Corporation's Medrano 5, SE NW SW 36-6n-10w, a west edge well drilled to 3432 feet. On a 24-hour initial production test through casing, the well made 1232 barrels of 36 gravity oil and 1,500,000 cubic feet of gas.

Crescent

Crescent pool which is to receive considerable deeper exploration, was proved for second Wilcox sand production by Mid-Continent Petroleum Corporation's Campbell 1, C SE NE 33-17-4n, which missed the first Wilcox sand. This test was drilled into the top of the second Wilcox to make a producer, but later development proved the well did not go to a depth sufficient to obtain the prolific production later found.

Continental Oil Company's McConnell 2, NW SE SE 28-17-4w, an old well deepened, topped the second Wilcox 6250 feet and was completed at 6305 feet. This test established the fact that the second Wilcox sand of the pool has a hard top of about 50 feet in thickness, and that beneath this cap, the sand is porous and of considerable thickness, affording unusually large production. When the state potential test was made June 22 on McConnell 2, it was given a rating of 33,928 barrels of oil.

Carter Oil Company and Gulf Oil Corporation's Miller 2, SW NE SE 28-17-4w, another well deepened to the soft pay of the Wilcox early in July received a state potential of 52,280 barrels from a depth of 6324 feet.

At present Continental Oil Company is drilling McConnell 3 below 5000 feet in the SW SE SE 28-17-4w and the same company has staked location for McConnell 4, NE SW SE 28-17-4w. In the same section Sinclair Prairie Oil Company is drilling Phillips 2, SE NW, which is an important test due to the fact that this test may be to the west of an indicated north and south fault line.

Carter Oil Company and Gulf Oil Corporation have three operations that are being deepened to the more porous section of the second Wilcox sand. The last completion in the pool came in July 28 for an estimated 1000 barrels of oil per hour with hole bottomed at 6274 feet. This test, Carter Oil Company and Gulf Oil Corporation's Walker 2, SW NE NE 33-17-4w, will be an early completion. Within the next 30 days there should be four additional wells completed in the lower section of the Wilcox, which so far in the development has not shown for a water table. Two starts are scheduled, one each by Mid-Continent Petroleum Corporation and by The Texas Company, each of which will probably be carried into the soft pay.

Geological features of this pool, and the depth at which casing has been set in the wells already producing from the top of the second Wilcox, will allow many of the present producers to be deepened. This has been reflected in those operations recently completed and in the operations underway at present. Many of the wells have eight inch casing set near 6000 feet in the Simpson, others have seven inch set at the same depth.

At present the Crescent development is well under way to determine the extent of the deeper pay. Due to the unusually large production obtained, Mid-Continent operators are watching with interest the development.

Routine Work

NO NEW DEVELOPMENTS IN SOUTHERN OKLAHOMA

Ardmore.—Drilling operations in southern Oklahoma dragged slowly ahead as the week drew to a close, with no unusual developments being reported from the area. In northeastern Love County, Amerada Petroleum Corporation and Stanolind Oil & Gas Company's Westheimer 1, SW SE SW 27-6s-2e, flowed 75 barrels of oil on August 2, and 24 barrels the following day. Production is coming from a shallow horizon, between 2430 and 2970 feet in the Viola lime. The oil is 39 gravity, and operators are continuing attempts to make the well flow. Another test made August 6 showed a flow of 25 barrels of oil in 26 hours.

The deepest wildcat in the southern part of the state, Sinclair Prairie Oil Company's Stockton 1, SEc SW 26-6s-2w, was drilling plugs at 8425 feet. After completion the well will be deepened 20 feet and acidized for a test of the lime.

In the Frederick area of Tillman County, Gulf Oil Corporation's McWilliams 1, NW SW SW 15-3s-17w, was drilling in soft shale at 5689 feet. The same

company's Wearmouth 1, SE NW SE 31-1s-18w, was milling and fishing to recover drill stem lost at 5127 feet. Rochelle Bernheimer Tate 1, NEc NW 16-1s-19w, was shut down at 2791 feet and was waiting on a string of five-inch casing to shut off cavings in the hole.

Johnson et al's Donahoo 1, SE NW NW 7-4s-17w, was drilling at 3175 feet. Eugene Skinner's Riling 1, SEc NW 22-1s-15w, was drilling below 825 feet. Gulf Oil Corporation's Johnson 8, C SW SW 28-2s-3w, was drilling in broken lime at 6765 feet. Helmerich & Payne, Inc. and Superior Oil Company's Taliaferro 1, NW SE SW 26-5s-5e, was drilling below 3900 feet in the Caney shale.

Carter Oil Company's W. M. White 1, NE SE SE 21-3n-5w, in the Knox pool of Grady County, pumped 50 barrels of oil in 24 hours after being drilled to 1780 feet. A new location in southeastern Murray County was Power Oil Company's 1. Field men report it should be a most interesting Arbuckle mountain test. Contract depth is 3000 feet.

Carter Oil Company's Walker-Voorhees 1, C SE SW 34-5s-2w, south of Hewitt in southern Carter County, was drilling ahead at 7912 feet. The same company's Davidson 1, C NW SW 2-9n-25w, north of Erick in western Beckham County, was drilling at 6413 feet in hard lime. W. H. Riddle et al's Johnson 1, C SW SE 20-8s-2w, in southern Love County, was drilling in very hard lime at 2770 feet.

CONTINUE HEARING

Oklahoma City.—The Corporation Commission is continuing to August 28 further hearing on the petition of Indian Territory Illuminating Oil Company for reclassification of the Simpson below Wilcox zone of the Oklahoma City field as an unprorated area. The zone is now classed among the voluntary prorated pools.

56 NEW STARTS

Tulsa.—In Oklahoma new wells ran behind completions for the week, being 56 to 69. The completions were divided into 49 oil producers, 12 dry holes 7 abandoned locations and 1 gas well. The 49 producing wells were rated for 110,277 barrels initial production.

Osage County drew the highest total of new locations, 11. Pontotoc County had 10, Creek County 7, Seminole County 6, Carter County 4, Okfuskee County 3, Coal and Hughes Counties had 2 each. One location was staked in Garvin, Grady, Harmon, Jefferson, Logan, Marshall, McIntosh, Okmulgee, Pottawatomie and Stephens Counties.

GATHERING LINES

Kansas City, Mo.—Panhandle Eastern Pipe Line Company has awarded to J. R. Stewart Construction Company a contract for laying approximately 15 miles of field lines in the vicinities of Dumas, Texas, and Hugoton and Liberal, Kansas. The lines will be 16, 12, 8, 6 and 4 inches in diameter and will be acetylene welded. Construction is to start about August 17. They will be used in gathering gas from the above areas for the Panhandle Eastern Pipe Line Company, whose system extends from the Texas Panhandle to Detroit.

New Discovery

RUSSELL COUNTY GETS AN ADDITION TO ITS FIELDS

WEEKLY STAFF REPORT

Wichita.—One new pool, and extensions to the Wellington field, Sumner County, Lerado field, Reno County, Schartz field, Rice County, and Graber pool of McPherson County were outstanding in Kansas the past week. Completion of the third well in the state's west most production resulted in the area's largest well, and other important developments continued to keep Kansas in the limelight.

The westernmost oil producing area in Kansas, the Shallow Water pool of Scott County, had its third completion last week. The well is Atlantic Oil Producing Company's Mark 1-B, C NW SW 14-20s-33w, which was completed for 1157 barrels of oil natural from the Mississippi lime at 4650 feet.

The Mark 1-B, which was drilled several months ago, is a southeast diagonal offset to the discovery producer and a south offset to the second well drilled in the area. It had not been completed or given a potential test previously because of the lack of storage space. The field is without a pipe line outlet, although some oil has been removed from the area by trucks. The new producer is nearly twice as big as the first two wells in the area, which have an initial production of 572 barrels and 731 barrels respectively.

A new pool for Russell County was opened by Gulf Oil Corporation's Ehrlich 5, SW SE NW 1-14s-15w, which swabbed 817 barrels of oil in 16 hours from the Topeka lime at 2925 feet. The area has been designated as the Ehrlich-Sullivan pool by proration officials. Three other wells there had their production from the Oswald lime, while a fourth produces from the Gorham sand.

The possibility that another new pool will be opened for Ellis County was seen late August 7 when Philham Oil Company's Gerstner 1, SWC SE 24-14s-17w, filled 600 feet with oil at 3262 feet in the Oswald. Operators were preparing to run tubing and test. The well is 3½ miles northwest of the new Victoria field in Section 2-14s-17w, and seven miles west of the Gorham pool. A slight show of water was had at 3233 to 3235 feet, when one bailer of oil an hour was found.

An extension of the Wellington pool of Sumner County was had when Slick, Pryor & Lockhart's Murphy 2, SEc 32-31s-1w, found the top of the chat at 3652 feet and began flowing 20 barrels of oil an hour natural from 3680 feet. The same interest's Murphy 1 was completed for 708 barrels of oil. Murphy 2 appears to be the best producer in the southwestern part of the field.

Shell Petroleum Corporation's L. F. Whipple 2, C E½ E½ NW 14-26s-9w, may extend the big Lerado pool of Reno County, as it appeared for a producer from the Viola lime. Acidized with 3000 gallons and waiting six hours, the well flowed 69 barrels of oil by heads in six hours. It was shut in for three hours and when reopened flowed 398 barrels of oil in one hour. It will be reacidized before completion. Third extension of the week was made by The Texas Company's Kleile 1, NW SW SW 34-19s-10w, in the Schartz pool of Rice County, when it filled 2000 feet with oil in four hours after drilling to 3327 feet in the lime. It is now preparing to test.

The north end of the Graber pool of McPherson County was widened one location east as a result of finding 2500 feet of high gravity oil standing in the hole of Continental Oil Company's Hetzke 4, NEc 29-21s-1w. It will be drilled several feet deeper in an effort to increase production. The pay was found at 3303 feet and production came from 3307 feet, and the well was carried to 3314 feet with cable tools. It will be given a swabbing test after being deepened and will be acidized before potential is established.

Derby Oil Company's Brown 1, NW SW SW 22-21s-7w, has apparently defined the Hauschild pool of Rice County, as it has been abandoned as a dry hole at 3397 feet in the conglomerate. It was shot and acidized, but failed to produce. The well is located 1½ miles south of the gusher pool.

Vickers Petroleum Corporation's Kraus 1, SWc NW 22-14s-19w, two miles northwest of the discovery well of the Antonio pool of Ellis County, pumped 259 barrels of oil in 24 hours from the basal sand at 3740 feet. The discovery well, Twin Drilling Company's Copeland 1, made 410 barrels of oil.

Dudley L. Morgan and Olney Flynn's Koriel 1, NWc SW 23-18s-6w, topped the sand at 3511 feet and is estimated to be good for 1000 barrels of oil daily. It is the second test to find oil production in the south end of the big Otis gas field of Rush County, and is a quarter mile southeast of the Schermerhorn Oil Company's Maneth-Brackley 1, recently completed for 716 barrels of oil from the sand. Gas in the new well was estimated at 34,000,000 cubic feet.

John H. Tatlock's Herscheidt 5, NE NW NW 6-20s-10w, in the Silica pool of Rice County, was completed for 1994 barrels of oil from a total depth of 3285 feet. Shell Petroleum Corporation's Tobias 1, SE SW NE 6-19s-9w, a north offset to the discovery producer in the Haferman pool of Rice County, swabbed 15 barrels of oil in three hours from the

Arbuckle lime at 3226 feet and ran tubing preparatory to acidizing.

A 24-hour potential of 2546 barrels of oil after acidizing was given W. I. Southern's Shaffer 4, NE NW NE 31-15s-13w, in the Sellens area of Russell County. It topped the Siliceous lime at 3253 feet and was drilled to 3257 feet before testing.

Lew Wentz and Continental Oil Company's Snook 1, NE NW SW 10-22s-8w, south of Sterling in Reno County, was reported to have topped the Siliceous lime at 3600 feet, running slightly high after drilling into the formation three feet with nothing showing. Snook 1 appears to be on the same trend, some five miles southwest of production in the Hauschild gusher pool of Reno County.

KANSAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BARTON COUNTY—		
Schermerhorn, Hunter 1, ne ne ne 29-18s-15w (pb 3518)	¶39	3576
Mid-Continent, Matzek 7, nw se se 25-19s-11w	488	3298
Sinclair Prairie, Isern 1, se ne sw 25-19s-11w	910	3307
BUTLER COUNTY—		
Page Houston, Keystone 1, sw nw sw 8-23s-4e	200	2088
National Ref., Sutter "A" 2, ne se ne 1-28s-6e	874	3186
Phillips Pet., Scully 16, nw nw se 17-23s-4e	47	2039
COWLEY COUNTY—		
Texas Co., Ed Wheeler 2, sw se nw 35-30s-4e	*	3095
Cameron & Pulse, Simpson 1, cne nw 30-30s-4e	*	2875
ELLIS COUNTY—		
Margay Oil, Bemis 1, se se se 16-11s-17w (otd 3040)	890	3439
Ryan Consolidated, Bemis 1, nw nw nw 22-11s-17w	1688	3408
York State Oil, Koestle 1, nw nw se 12-17s-9w	*	3235
ELLSWORTH COUNTY—		
Ramsey et al, Gregory 1, sw sw se 25-16s-9w	*	3323
Carter et al, Ogden 5, nw nw sw 26-17s-9w	1416	3166
GREENWOOD COUNTY—		
Barbara Oil, Pixlee 18, se nw sw 8-22s-10e	*	2430
Henderson Oil, Harlan 7, se sw nw 34-22s-11e (pb 1895)	20	1938
McGinnis, Lampe 1, nw ne sw 26-24s-8e	*	2487
Shull Drlg., Johnson 5, sw ne nw 16-24s-12e	20	1726
Houston Okla., Coffman 1, ne ne nw 20-24s-13e	*	1638
Hollis Bros., Lindamood 2, cnw sw 7-25s-13e	*	1611
Wenzel et al, Cross 2, nw se ne 12-27s-10e	*	1997
HARPER COUNTY—		
Marathon, Zellers 1, csw nw 17-35s-8w	*	6004
McPHERSON COUNTY—		
Continental et al, Hetzhe 3, ne nw ne 29-21s-1w	1828	3314
RENO COUNTY—		
Olson & Shell, Sabin "B" 4, cse sw 13-23s-4w	¶8-84	3374
Sinclair Prairie, Showalter 1, se se se 8-24s-4w	394	3390
Shell, Hoskinson "A" 3, cnw se 9-24s-4w	¶5-374	3384
Stanolind-Amerada, Welch 1, cse nw 9-24s-4w (otd 3372) (pb 3383)	315	3391
Marathon, Hill 1, ne se se 28-24s-4w	469	3391
Siegrist & Miller, Love Estate 1, cw½ sw se 13-24s-8w	443	3551
RICE COUNTY—		
Simpson, Noble & Stanolind, Bowman 1, sw sw nw 22-19s-10w (pb 3297)	58	3305
Davis et al, Dueser 10, sw se sw 31-19s-10w	785	3286
Gulf Oil, Cross 2, sw sw ne 15-20s-9w	183	3245
Robertson Bros., School Lot 1, se se se 16-20s-9w	*	3300
Latlock, Berscheidt 5, ne nw nw 6-20s-10w	1994	3285
Derby Oil, Brown 2, nw sw sw 22-21s-7w	*	3665
ROOKS COUNTY—		
Skaer Oil Corp. & Reese, Drydon 1, ne ne ne 28-10s-17w	*	3705
RUSSELL COUNTY—		
Aylward et al, Mermis 1, se sw se 18-12s-15w	*	3375
Central Pet., Ginther 2, sw sw ne 19-12s-15w	lcn.	abd.
Saco Oil, Furthmeyer 1, sw sw se 15-13s-19w	*	3348
Palmer Oil, Borrell 5, sw ne se 21-13s-14w	1149	3271
Coralena, Bloomhauser 2, se nw nw 32-15s-13w	1033	3282
STEVENS COUNTY—		
Texas Interstate, Hamilton 1, csw 9-33s-38w	lcn.	abd.
SUMNER COUNTY—		
Olson & Shell, Community 2-A, ne ne ne 14-32s-2e	657	3060
Community 7, nw ne ne 14-32s-2e	600	3029
WOODSON COUNTY—		
Chas. Cross, Mason 4, ne nw sw 14-25s-13e	*	1585
Sheedy et al, Lee 1, sw nw ne 28-25s-14e	*	1514
Pendley 1, cs½ n½ ne 22-26s-14e	lcn.	abd.

*Failures; †Junked; ¶Million cu. ft. gas.

42 LOCATIONS

Wichita.—Completions and abandonments took 46 wells from the drilling reports for Kansas during the week while 42 new locations were staked in the state. The completion total was divided among 25 producing wells, 17 dry holes, three abandoned locations and 1 gas well. Initial production of the 25 producing wells was 16,919 barrels.

New locations were scattered over western Kansas, 8 in Russell County, 6 in Rice County, 5 in Woodson County, 4 each in Barton and McPherson Counties, 3 each for Ellis and Sumner Counties, 2 in Marion County, with 1 each for Butler, Greenwood, Harvey, Pratt, Reno, Stafford and Stevens Counties.

J. A. DE LANOY, director of purchases for Asiatic Petroleum Corporation and Anglo-Mexican Petroleum Corporation in New York, returned August 5 after a three-month sojourn in Europe.

Allowable Up

MORE PRODUCTION WILL HALT DRILLING DECLINE

WEEKLY STAFF REPORT

Hobbs, N. M.—Slight increase in the allowable production of prorated wells in Lea County was placed in effect August 1 when the New Mexico Oil Conservation Commission boosted the total allowable of the state 3900 barrels to permit a maximum yield of 78,000 barrels daily during the current month. The latter figure exceeds by 7900 barrels the production quota recommended by the United States Bureau of Mines.

New Mexico authorities hiked the output of the state in order to forestall a threatened slump in development work in Lea County areas that arose from repeated cuts in the allowable of non-marginal wells in order to absorb new completions recorded each week. Total for the state has been increased slightly each month, but not sufficient to take care of new wells. Effective August 1 Lea County areas prorated on a flat well basis were allotted 96 barrels per well daily, representing a gain of 3 barrels, while the Hobbs and Monument fields, which are prorated on a basis of average unit potential and acreage, and average bottom hole pressure and acreage, respectively, were increased proportionately per well.

Lea County recorded 8 oil producers on its current completion report, and during the same period added 7 new locations, which were distributed among 5 separate areas. Completions have been exceeding new locations for some weeks, with most of the decline in new work charged to the Monument and Eunice dolomite lime fields.

Tide Water Oil Company's State 2-F, C NE NW 20-19s-37e, northeast outpost location for the Monument field, was converted into an attractive producer after shooting lime at 3970-4020 feet with 160 quarts of nitro. The well gauged 70 barrels per hour average during 7½-hour test, flowing through casing after the shot. The hole is bottomed at 4026 feet, or 323 feet sub-sea, and probably near the water level. Prior to shot the well produced 42 barrels of oil in 7 hours with the aid of gas lift and flow valves after using acid solution twice. New locations assigned the field last week included Tide Water Oil Company's D. L. Laughlin 1, C SE NW 4-20s-37e, and Repollo Oil Company's W. P. Byrd 2, NE NW NW 11-20s-36e. Amerada Petroleum Corporation was scheduled to stake 2 new locations over the week end.

The Eunice field accounted for 5 of the completions reported the past week,

and during the same period added two locations, including Shell Petroleum Corporation's State 3-E, C Lot 14, 6-21s-36e, and Repollo Oil Company's Berryman 1, SE SW SE 11-21s-36e. Atlantic Oil Producing Company and Tide Water Oil Company's H. L. Houston 1, NE NW NW 7-21s-36e, has been completed flowing 18 barrels per hour natural at 3854 feet.

The East Jal sandy-lime area gained one new location, and a natural flowing producer. Repollo Oil Company's Frances Stuart 1, SE NW SE 10-25s-37e, north offset to a big producer, gauged 35 barrels the first hour and 25 barrels oil the second hour after landing two-inch tubing to 3238 feet, with the hole bottomed at 3352 feet, or 239 feet sub-sea. The offset was drilled to 3294 feet, or 189 feet sub-sea. Sun Oil Company's B. T. Lanehart 1, C SE SE 20-25s-37e, looked favorable for a flowing producer after coring oil pay at 2906-2935 feet, with an elevation of 3042 feet. Drilling was halted in oil saturated sandy-lime to run casing. This well was originally drilled to 2790 feet, where it tested 22,000,000 feet of 1140-pound pressure gas, but lost tubing and section of drill pipe in trying to prepare the hole to deepen. It was plugged back to 2422 feet, and the junk successfully sidetracked. Skelly Oil Company's F. S. Stuart 1, C NE NW 15-25s-37e, developed split casing after 130-quart nitro shot at 3364-3416 feet, with an elevation of 3107 feet. It was drilled in with cable tools, and logged show of oil at 3381-89 feet. Stanolind Oil & Gas Company's P. J. Langley 1, C SE NW 15-25s-37e, is a south offset location.

In the South Eunice sandy-lime area, Gulf Oil Corporation's F. C. King 1, C SW NW 5-23s-37e, north offset to a 53-barrel pumper, swabbed dry through tubing after drilling to 3770 feet, or 399 feet sub-sea. Operations have been temporarily suspended. Skelly Oil Company's Ellen Sims 1, C NW SE 3-23s-37e, east outpost producer for the area, increased its natural flow to 702 barrels of oil in 22 hours after deepening to 3565 feet, or 265 feet below sea level, and further testing was delayed for tank room. Humble Oil & Refining Company's W. B. Farrell 1, C SW SE 22-22s-37e, east offset to a producer that is making its allowable after shot, is rated at 25 barrels of oil and 25 barrels of water daily after plugging back from 3705 to 3684 feet, or 343 feet sub-sea, and will be equipped for pumping.

Magnolia Petroleum Company's E. O. Carson 2, C SW SW 28-21s-37e, offsetting production in the North Eunice area, was rigging up the past week, and is the only operation in the pool. The Texas Company's E. D. Fanning 1, C SE NE 4-24s-37e, west offset to a 25-barrel wildcat pumper, encountered sulphur water in drilling to 3701 feet, with an elevation of 3293 feet, and has plugged back to 3656 feet to shoot with nitro.

NEW MEXICO

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
EDDY COUNTY (Artesia Field)—		
Red Lake Oil Co., State 7, nw nw se 22-17s-28e	25	1957
LEA COUNTY (Eunice Field)—		
Gulf Oil Corp., State-Bell-Ramsey 8, C Lot 12, 4-21s-36e	100	3890
State-Janda 2-C, c sw sw 15-21s-36e	2100	3909
Humble, A. J. Adkins 6, c nw nw 10-21s-36e	1500	3880
Mid-Continent Pet. Corp., C. W. Marshall 1, sw se se 11-21s-36e	1000	3858
Repollo Oil Co., State 7, nw se nw 19-21s-36e	150	4001
LEA COUNTY (South Eunice Field)—		
Skelly Oil Co., J. V. Baker 2, c nw nw 27-22s-37e	500	3596
LEA COUNTY (East Jal Field)—		
Repollo Oil Co., F. Stuart 1, se nw se 10-25s-37e	600	3353
LEA COUNTY (Monument Field)—		
Skelly Oil Co., State 1-E, c se ne 29-19s-37e	500	3960

*Failures; †Junked; ¶Million cu. ft. gas.

NEBRASKA

Dallas, Texas.—Byrd & Frost, Inc., Dallas, and associates are preparing to start exploration work on a large block of leases acquired in Western Nebraska late last year. Drilling rights have been taken on approximately 715,000 acres, centering upon Grant, Hooker, Garden, Sheridan and McPherson Counties, and approximately 500,000 acres of the total have been surveyed with geophysical instruments.

Location for the first of a group of deep tests under consideration has been approved for the NEc NW Section 22-24n-38w, Grant County, 4 miles northeast of Hyannis. Helmerich & Payne, Inc., Tulsa, were awarded contract to drill to 7800 feet, which is believed of sufficient depth for a production test of the Sundance, Dakota, Niobrara and Lakota horizons. The following concerns are reported to have become associated with Byrd & Frost in the Western Nebraska project: Magnolia Petroleum Company, Amerada Petroleum Corporation, The Texas Company, Shell Petroleum Corporation, and Mid-Continent Petroleum Corporation.

HOPKINS HEARING

Austin.—Hearing on a spacing rule and other field rules for the Hager-Russ area in Hopkins County will be delayed until further tests have been made on wells, Chairman Ernest Thompson of the Railroad Commission announced.

The hearing, when held, will be at Sulphur Springs. The commission at first had called a hearing in Austin on August 14, but this was cancelled.

TAX UNCHANGED

Austin.—The state tax on property next year will continue at 62 cents on the $100 valuation. The automatic state tax board left the rate unchanged.

The board fixed the general revenue tax at 35 cents and the Confederate pension tax at 7 cents, the constitutional limits for those funds; and the school tax at 20 cents, 15 cents below the constitutional limit.

The board estimated that on August 31, the state's general revenue fund deficit would be $9,506,741; the Confederate pension fund deficit would be $5,101,430; and the school fund would have a cash balance of $1,293,797.

NORTH TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ARCHER COUNTY—		
S. S. Alexander et al, I. H. Gathright 1, sec 1801	*	925
Nick Anagos et al, J. S. Bridwell 8	2	913
Mrs. Thelma Andrews et al, N. I. Andrews 1, blk 15	*	1073
L. T. Burns et al, W. M. Ashworth 5, blk 17	6	1215
A. F. Ickert 12, blk 18	8	1196
J. J. Perkins 2-C, sec 10	300	1620
L. F. Wilson 1-DD, blk 3	*	1624
Conoco, S. M. Gose 55, Sec 8	*	1661
Consolidated Oil Co., Portwood 2-CC, sec 2411	60	1439
N. D. Goldsmith et al, L. F. Wilson 4, blk 7	70	1609
G. E. Griminger et al, J. J. Perkins 1	*	1521
W. T. Hutcheson, Jr., et al, McCrory 4, sec 121	10	617
Jennings Pet. Co., E. V. Pearston 4, blk 120	*	1190
Kemp & Waggoner, L. F. Wilson 1, sec 75	71	2230
Phillips & Healey, White 4	*	700
Regal Oil Co., L. F. Wilson 6, blk 14	200	1614
White & Duncan, J. W. Hasson 1	*	721
CLAY COUNTY—		
Midfield Oil Co., McClellan 1	*	2205
COOKE COUNTY—		
Anderson-Kerr Pet. Co., DeLisle 1	265	2002
Fain-McGaha Oil Corp., J. W. Mount 1	125	1737
Harrison & Dillard, R. W. Trew 7	125	1230
Homarado Oil Co., Wilson 1	540	1996
The Texas Co., F. J. Trubenbach 3	20	966
United Producers Co., R. W. Trew 4	130	1166
JACK COUNTY—		
J. W. Campbell et al, W. J. Cannon 1	*	987
R. D. Compton Oil Co., C. C. Henderson 9, blk 2	4	315
D. G. Ellis et al, T. E. Craig 1, blk 3	*	347
Lawson Pet. Co., L. J. Hester 1	25	3049
Perren & Gillespie, Nora Keys 3	524	3022
E. B. Sewell et al, D. R. Sewell 5	5	304
MONTAGUE COUNTY—		
Arco Oil Co., M. Salmon 5-E	72	1680
The Texas Co., Cunningham 11-B	24	932
WICHITA COUNTY—		
Clark & Cowden, C. T. Marshall 1	*	2009
Culbertson Co., Waggoner Est. 75, sec 13	5	1378
Douglas Prod. Co., L. P. Douglas 26-A	5	305
Fain-McGaha Oil Corp., Munger 1, blk 31	†	1065
G. H. Howell et al, Foster-Allen 1, sec 1	*	900
Mogren & Anderson, E. E. Goetze 39, sec 2	15	925
W. B. Omohundro et al, S. P. Gibson 6-A, blk 302	60	1925
S. P. Gibson 7-A, blk 302	50	1925
Pois & Schultze, Ed. Foster 1, sec 1	*	1808
The Texas Co., Waggoner Est. 430, sec 13	37	1594
WILBARGER COUNTY—		
King Oil Co., Waggoner Est. 1-P, sec 27	20	1997
Lawson & Leavell, Waggoner Est. 8-A, sec 109	60	1448
Lido Oil Co., Waggoner Est. 14, sec 50	*	244
YOUNG COUNTY—		
Roy G. Barton et al, D. E. Spear 1	*	601
L. T. Burns et al, J. D. Carpenter 9, sec 164	*	935
W. F. Collins et al, Robt. Bullock 1, sec 419	*	507
T. A. Dunkin et al, C. F. Newman 4	4	543
V. E. Ekholm et al, T. Harmon 1	*	602
Gorsuch Oil Co., O. W. Matthews 22	*	761
Hamilton Pet. Co., J. K. Jeffery 13, sec 53	300	842
O. Hudgeons et al, E. F. Farrow 1, sec 1369	*	1000
T. C. Hurley et al, A. C. Casey 1, sec 1905	*	750
L. A. Long et al, W. Riggs 1	89	4200
Pet. Producers Co., C. E. Luton 4	20	669
Wichita Prod. Co., E. C. Keith 11, sec 267	10	718

*Failures; †Junked; ¶Million cu. ft. gas.

Two Eliminated

YOAKUM AND GAINES FAIL AS PRODUCERS

WEEKLY STAFF REPORT

Midland, Texas.—Structural relief recorded by wildcats in Yoakum and Gaines Counties was not accompanied by sufficient saturation so two prospective producers have been eliminated on the north portion of the Permian Basin section of West Texas. In the former county, E. R. Bahan, R. R. Rhodes and J. E. Fitz-Patrick's Alice Henard 1, C SW Section 367, Block D, J. H. Gibson Survey, encountered sulphur water in lime at 5327-5328 feet after passing up a small show of free oil at 5240-5249 feet. This showing is not considered sufficient to run pipe and use acid or nitro after plugging back.

Failure of Humble Oil & Refining Company's Wales Eubank 1, C SW SW Section 6, Block AX, PSL Survey, Gaines County, to make a producer in drilling to 5240 feet, or 1875 feet sub-sea, provided an unexpected upset. Evidence of oil saturation was noted in cores at 4778-96 feet and continued at intervals, but negative results were gained from a series of drill stem tests. Slight show of oil and gas was noted when formation tester was used at 4798-4816 feet. This wildcat is about eight miles northwest of Landreth Production Corporation's Kirk 1, a recent oil strike that swabbed 107 barrels initial after using acid at 4820 feet, but encountered sulphur water in drilling deeper to 4870 feet, or 1599 feet below sea level. The latter failed to attain water shut-off in plugging back to 4855 feet. Eubanks 1 checked 165 feet higher on structure than the producer, based upon correlation of the brown lime marker.

Acreage values in the prolific Henderson field, Winkler County, topped a new high last week when Harry Bass, Dallas producer and contractor, and associates bid $20,500 cash and $480,000 additional, payable from one fourth of the production, at auction sale of 2 80-acre tracts that offset big wells to the west. Bass et al obtained lease on the N½ of NE and S½ SE of Section 4, Block 26, PSL Survey, and will start a well on each tract immediately upon approval of title. Due to the heavy oil payment involved, royalty owners will press developments on every location, or a total of 16 wells, if the west portion of the tracts will produce. Humble Oil & Refining Company formerly held lease on Section 4, but the contract expired before the area proved productive. Atlantic Oil Producing Company has three rotary contract rigs in operation on two of its leases in the area, having acquired Wahlenmaier Petroleum Corporation's equity in 117½ acres, and three completed wells, for $1000 cash per acre and an equal sum per acre, payable from production. Sinclair Prairie Oil Company is drilling one test, and Wahlenmaier Petroleum Corporation also has one operation under way, with locations for three others on its remaining 80-acre lease.

Humble Oil & Refining Company's J. B. Walton 3-C, SWc SE Section 34, Block 74, PSL Survey, offsetting a big producer to the east in the Henderson field, recorded a sharp dip in the structure in drilling to 3113 feet, or 236 feet sub-sea. The hole swabbed dry at 3090 feet, but encountered saturated lime immediately below this level. At 3113 feet the well made a light flow, and flowed steady after using 5000 gallons of acid solution, but potential gauge has not been determined.

Extension of the Waddell field across the county line into southern Ector County will be attempted by Continental Oil Company's W. P. Edwards 1, SWc SW Section 32, Block 44, T&P Ry. Survey, T-3-S, or about 1¾ miles northwest of nearest production. In the field proper, Magnolia Petroleum Company's Edwards 6, SWc SE SW Section 2, is flowing 100 barrels daily by heads from upper pay at 3347-52 feet, and drilling ahead at 3420 feet, or about 100 feet above the porous lime horizon.

WEST TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ECTOR COUNTY (North Cowden Field)—		
Stanolind, J. M. Cowden 33	605	4276
ECTOR COUNTY (Judkins Field)—		
Skelly Oil Co., et al, J. Scharbauer 4	206	3720
FISHER COUNTY—		
Gen'l Crude Oil Co., J. C. George 7	334	3098
HOWARD COUNTY—		
Conoco-Group 1 Oil Corp., Overton 7-A	460	2397
Settles 8-S	327	1270
JONES COUNTY—		
Condor Pet. Co., H. Sayles 9	283	2250
Knight & Ewing, Lon Steffins 1	*	2240
Owens-Snebold Oil Corp., S. Gorman 1	*	2301
Ungren & Frazier, H. Dorsey 7	644	1997
PECOS COUNTY (Pecos Valley Field)—		
Arnold Oil Co., Scharff-Blackman 1	45	1650
PECOS COUNTY (Torborg Field)—		
Cardinal Oil Co., Tippett 3-J	74	364
UPTON COUNTY (McCamey Field)—		
Cordova Union Oil Corp., Fee 1-A	286	2096
Black, Case & Hanna, J. F. Lane 5	127	2344
Gulf Oil Corp., J. H. Shirk 6-E	257	2399
J. W. Ellis et al, J. W. Robbins 1-B	660	2224
WARD COUNTY—		
California Co., L. A. Adams 5	1255	2580
A. B. Gordon 29	373	2520
Empire O&R Co., McDonald 4	725	2525
Lindsay Drlg. Co. & Bolin, Hordage-Wilson 2-A	160	2505
Republic Prod. Co., C. R. Fox 1	292	2340
Sinclair Prairie, J. C. Messer 3	349	2351
TP Coal & Oil Co., H. James 16	1090	2535
WINKLER COUNTY (Halley Field)—		
Weaver and Hoffman-Page Co., Halley 1	166	2881
WINKLER COUNTY (Sayre Field)—		
Bert Fields et al, Roy Clapp-Pure 2	943	3095
Magnolia, J. B. Walton 26	753	2954
Mid-Continent Pet. Corp., Walton 3	†	2522
Sinclair Prairie, Walton 3-B	1242	2950
Tide Water, Walton 6	836	2920
WINKLER COUNTY (Scarborough Field)—		
Richardson Oils, Inc., W. F. Scarborough 5-F	594	3000
YOAKUM COUNTY—		
Bahan-Rhodes & Fitz-Patrick, Henard 1	*	5328

*Failures; †Junked; ¶Million cu. ft. gas.

382 TEXAS STARTS

Southwest area assumes leadership with 84

Austin.—Permits issued by the Railroad Commission to drill new wells totalled 382 last week, which was 88 less than the total of 470 established during the previous period.

Southwest Texas assumed leadership with 84 locations, of which 32 were in

Two Semi-Wildcats

IN EASTLAND COUNTY BEING COMPLETED FOR GOOD WELLS

Ranger, Texas.—Eastland County has two semi-wildcat oil producers in process of completion. Preliminary showing by these new strikes will encourage more drilling in their respective areas. G. D. Chastain et al's H. Brashear 1, near center of north line of the W. Van Norman Survey, about four miles due south of Ranger, developed a natural flow from top of Ranger sand at 3210 feet. Production is estimated at from 300 to 500 barrels high gravity oil and 2,000,000 feet of gas daily. This well is more than one-half mile from abandoned producers, and is beyond the assumed limits of the old Ranger field.

Hickok Producing & Developing Company's City of Cisco 2, NEc of Section 84, H&TC Ry. Survey, Block 4, about one mile north of Cisco, gauged 175 barrels of 43° gravity oil in 20 hours, flowing through tubing, from sandy-lime formation at 3691-3694½ feet. It is also making about 2,000,000 feet of wet gas daily.

Duval County, 17 in Nueces, 6 in Webb and 6 in San Patricio.

The East Texas field had 60, divided by counties as follows: Gregg 27; Rusk 22; Smith 5 and Upshur 6. Close behind was East Central Texas where 57 locations were approved, including 29 in Franklin County, 8 in Hopkins, 7 in Titus and 5 in Cass.

In the Gulf Coast area, Harris was the most active county, with 23 out of the district's 49 approved locations. Wharton County operators listed 5.

North Texas operators obtained permits for 47 wells, of which 22 were in Archer County, 19 in Young, and 5 in Cooke. In West Central Texas, 31 permits were approved, including 12 in Shackelford County, 6 each in Upton and Callahan Counties, and 5 in Jack.

West Texas listed 31 wells, Ward County leading with 9; while the Panhandle locations totalled 23, of which 15 were in Hutchinson County.

WEST CENTRAL TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BROWN COUNTY—		
Brown-Hancock and Specialty Oil Co., Moore 1	*	2005
W. R. Cunningham et al, Armstrong 1	219	1423
Gunn Prod. Co., Dickens 6	35	1420
R. R. Irving et al, McCreary 1	*	1600
CALLAHAN COUNTY—		
Beams Prod. & Dev. Co., Jackson 14-D	110	1198
Brannon & Murry, Walters 1	*	1300
E. P. Campbell et al, Head Bros 1	*	1710
Bill Graham et al, Dyer 1	*	1302
Hal Hughes et al, Windham 1	*	1504
Jackson Bros., Kirby 1	*	585
J. T. King et al, O'Neal 1	*	951
L. Mendenhall et al, Jackson 1	*	1155
Pueblo Pet. Co., Williams 1	12	965
R. F. St. John et al, Duggan 1	*	1689
A. Straughn et al, Hatchett 1	*	390
L. A. Warren et al, Jackson 3	†	832
Jackson 3-A	*	1021
Jackson 4	20	1014
Woodley Pet. Co., Flores 32	*	774
COLEMAN COUNTY—		
Anzac Oil Corp., Hutchings 4	¶¾	1013
EASTLAND COUNTY—		
A. J. Bartrug et al, C. V. Fox 1	10	1153
W. Hampton et al, Harrell 1	*	1480
Ray T. Hoff et al, J. White 3	*	1483
N. A. Moore et al, Carter 4	*	1598
HAMILTON COUNTY—		
Seaboard Oil Corp., Julia Dawson 1	¶3.3	5345
MILLS COUNTY—		
J. E. Ellis et al, C. B. Vaughn 1	*	2785
PALO PINTO COUNTY—		
A. S. Hickok et al, Robinson 2	*	1550
SHACKELFORD COUNTY—		
Baker & Pardue, Morris-Buie 5	80	1608
Geo. Callihan et al, Jeter 9	10	962
Charter O. & G. Co., Herrington 1	35	1631
Herrington 2	*	1635
A. R. Eppenauer Drl. Co., Morris-Buie 4	179	1592
Groover & Rose et al, Newell 1	*	1136
M. L. Hays et al, Leschber 1	15	769
Hoffman & Page Co., Morris-Buie 21	10	1599
Owens & James, Morris-Buie 4	209	1608
Poly Oil Co., et al, Spears 11	18	797
Putnam Supply Co., Morris-Buie 2-B	70	1600
Geo. B. Ray et al, Vickers 6	400	1602
Reliance O. & Roy. Co. et al, Davis 14	30	1632
Nail 3-B	124	1371
Roeser-Pendleton, Inc., Dawson 12	65	1599
Roeser-Pendleton, Inc.-Humble, Morris-Buie 26, sec 201	240	1610
Morris-Buie 27, sec 201	157	1608
Tannehill Pet. Co., Newell 1	*	1343
Ungren-Frazier & F. Oyster, A. Davis 1	*	1842
West Texas Oil & Prod. Co., Morris-Buie 7	165	1609
C. E. Wickman et al, Green 4	*	1165

*Failures; †Junked; ¶Million cu. ft. gas.

Exceeds Forecast

SULPHUR BLUFF DISCOVERY WELL PUMPS 530 BARRELS

WEEKLY STAFF REPORT

Tyler.—The discovery well of the Sulphur Bluff area, Eastern Hopkins County, exceeded early forecasts in producing 530 barrels of 24 gravity oil daily from Paluxy zone at 4467-4500 feet when given initial pumping gauge last week. This strike was made early in July by Dilworth S. Hager, W. P. Luse and Russ Petroleum Company's J. E. Worsham 1, A. O. Wetmore Survey, and drilling is in progress on Worsham 2, a southwest offset. The well failed to flow when swabbed down, and completion was delayed to install a heavy-duty pumping unit. Owners have developed a market for 6000 barrels of crude to be used by the county commissioners in topping unpaved highways, as this low gravity oil and also that produced in the Talco field has been found to be very desirable for use on highways without refining.

The Sulphur Bluff area is on the same zone of faulting as the Talco field, and marks the entry of a second field in Northeast Texas from the Paluxy zone. The oil is not suitable for skimming plant operations, but it has possibilities of a popular demand as road oil, with an advantage of a low price compared to prices paid for other crudes in the Greater Mid-Continent that are competing for road oil markets. Sulphur Bluff is expected to develop into a long and narrow field, and possibly as large as the Talco structure. Lease owners are not eager to press developments, but will carry out a conservative drilling program when a steady market for production is in sight. A few independents have taken out permits to drill in the area, but outside the discovery block, and may defer operations indefinitely.

The group of wildcats seeking production from the Trinity series in East Texas remained active the past week, but no important developments arose. Pure Oil Company's Faulkner 1, which is drilling in Basal Trinity on the Mount Enterprise faulted structure in southeastern Kaufman County, was logging shale and sand at 7770 feet. In the Cayuga field, Tide Water Oil Company and Seaboard Oil Company's J. N. Edens 15 was drilling in upper Glen Rose near the 6700-foot level, having entered this zone at 6040 feet, or 5727 feet sub-sea. Gulf Oil Corporation's Mary J. Ross 1, Camp Hill area, Anderson County, was logging lime and shale in drilling below 7300 feet.

J. A. Forester et al's J. F. Woodward 1, near Minter, Lamar County, resumed drilling after being idle for more than three months in lower Trinity at 4516 feet, and was drilling below 4550 feet, according to late reports. This wildcat will attempt to drill through the Trinity to try for production in the Pennsylvanian, or Cambrian sections of the Paleozoics. E. G. Colton, R. P. Lester et al's Barrow Brothers 1, northeastern Kaufman County, was drilling in upper Trinity at 5250 feet.

TEXAS PANHANDLE

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CARSON COUNTY—		
Texoma Nat'l Gas Co., S. B. Burnett 3-G, sec 81	¶56	2530
GRAY COUNTY—		
Empire O. & R. Co., H. T. Bender 9	547	3290
H. T. Bender 10	726	3255
Nabob O. & G. Co., J. S. Morse 2-D, sec 54	*	3105
Skelly Oil Co., H. Schafer 75	925	3307
The Texas Co., C. S. Barrett 4	608	3242
HUTCHINSON COUNTY—		
Cocha O. & G. Co., J. T. Hodges 1, sec 14	159	3050
Gulf-Panhandle Ref. Co., Dial-Perkins 60	288	3100
L. W. Timms & Robinson Oil Corp., J. W. Moore 2	360	3124
MOORE COUNTY—		
W. J. & J. F. Moran et al, Lucky Tiger Oil Co. 1-A	¶13.7	3315
Texas Interstate P. L. Co., Brown 1, sec 36	¶53.7	3000
WHEELER COUNTY—		
Skelly Oil Co., D. E. Johnson 22	303	2609

*Failures; †Junked; ¶Million cu. ft. gas.

WILDCAT SHOWS

Palestine, Texas.—Appearance of a slight show of gas with distillate cut mud in formation tester used on Walter L. Goldston, Houston, et al's B. W. Burns-Humble 1, northwestern Houston County wildcat, from Woodbine section at 5748-5866 feet caused attention to be focused upon this prospect late last week. Owners planned to ream the hole to make another drill stem test, and then decide if casing is to be landed for a production test. A successful completion would give the county its second Woodbine strike within two months.

ROBERT J. SHARPE, manager of sales of General American Tank Car Corporation for the Tulsa district, died suddenly at Palmer Lake, Colorado, July 27. Sharpe created a broad acquaintance through his 25 years of service with American Tank Car Company in supplying producers, refiners and other users of tank cars with equipment. His experience, while largely in the Southwest oil fields, had been extended by several years spent in the general office of the company in Chicago.

TALCO OUTLOOK

Continuous drilling over long period is prospect

Mount Pleasant, Texas. — Developments at Talso have progressed sufficiently to assure a continuous drilling program over a long period in taking care of offsets created by the 28 completed producers and completions due from the 31 active operations on the current field report. The Talco townsite is the center of activity, and in all probabilities will eventually have about 75 producers, although permits have been issued for one to four wells on every block in the townsite that is likely to produce. The field extends in an east to west direction parallel to the Mexia-Talco fault plane for a distance of 6½ miles, but barren spots have been encountered by failures considered ideally located for production in the Paluxy zone to make drilling somewhat hazardous.

Talco is receding in popularity with independents that rushed into the area with profits taken from the East Texas field and bid fancy prices for lease and royalty protection with intentions of waging a major drilling program. The entire field threatens to become a pumping proposition in short order, and the majority of the wells drilled in the townsite in recent weeks must be completed with heavy-duty pumping units to handle the low gravity and gas-free crude. Water has already appeared to further complicate matters. Market for the oil is limited to one purchaser, who has posted a price of 60 cents per barrel but levies a traiff of 7½ cents per barrel for gathering and marketing the oil, and each producer must maintain a pump to deliver the oil into the pipe line gathering system. The net return per barrel of crude to producers is probably the lowest in the United States, and apparently no relief is in sight until Humble Pipe Line Company completes its 65-mile eight-inch line some three months hence to Longview, where connection will be made with a line that will deliver the oil to Baton Rouge, Louisiana.

Extension of the Talco field about three-quarters of a mile south by east appeared promising last week when B. G. Byars, Tyler, et al's Mrs. Lucey Blackburn 1, NWc of 16.66-acre lease, J. W. McCullough Survey, A-373, cored oil saturation in Paluxy series at 4244-4301 feet, with an elevation of 327 feet. Operations were halted at this level to cement casing for a swabbing test. Humble Oil & Refining Company's P. J. Dawson 1, SEc of 80.45-acre lease and B. H. Epperson Survey, Franklin County, listed last week as an important west extension for the field, swabbed 60 barrels of 22.3 gravity oil in 13 hours from Paluxy at 4220-4330 feet, with an elevation of 372 feet, and is installing pumping equipment. It is a north offset to a failure. Dawson 1 logged top of Georgetown lime at 3432 feet. Red Iron Drilling Company, Dean Bros. and Adkisson's Lavada Church one-acre lot, offsetting production near the east line of Franklin County, was completed flowing 25 barrels oil in 25 minutes on preliminary gauge from Paluxy at 4125-4303 feet, with an elevation of 372 feet. The well kicked off after tubing swab was run eight times. Rig has been skidded by these independents to drill their Lavada School one-acre tract.

Flowing pressure in the Talco townsite is diminishing rapidly, and sand con-

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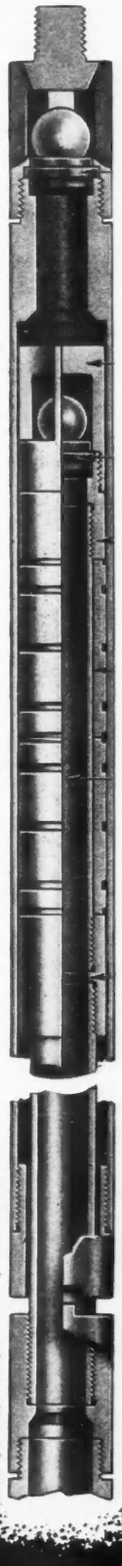

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ditions are proving somewhat irregular. R. E. Massengill, Dean Bros. and Adkisson's I. Tidwell 1, C Lot 14, Block 16, logged very little sand in Paluxy series at 4348 feet, or 3986 feet sub sea, and is rigging up to pump after swabbing test. Erle P. Halliburton, Inc., and W. H. Baker's H. M. Hood 1, logged comparatively little oil saturation at 4340 feet, and when deepened to 4389 feet, or 4029 feet sub sea, tested dry when formation tester was used with packer set at 4160 feet. The latter's Kelley 1 (52/100-acre), C Lot 3, Block 22, picked up soft sand at 4333-35 feet, and cemented casing after drilling to 4345 feet, or 3967 feet below sea level. W. P. Luse & Fosdick Drilling Company's Nugent 2, located on 2.3-acre lease, Block 18, failed to flow when swabbed through tubing from Paluxy at 4149-4337 feet, and will be pumped. This firm's W. T. Sullivan 2, NWc of 4.8-acre lease, bordering the townsite on the south, flowed 25 barrels per hour from Paluxy zone topped at 4162 feet.

The following townsite wells are awaiting pumping equipment to complete: Constantin & Company's Cato 1, C Block 44; J. W. Osteen et al's W. DuBose 1, and Paluxy Oil Corporation's Ulva Shaw 1. Magnolia Petroleum Company and Humble Oil & Refining Company's C. L. Owings 1, NEc of 160-acre lease, McKinney-Williams Survey, Franklin County, gauged 16½ barrels oil per hour from Paluxy at 4148-4300 feet, with an elevation of 367 feet. R. B. & H. Oil Company (was Earl Bateman and Al Ravenger's) E. L. Phillips 1-A, NWc of 38½-acre lease, Wm. Bridwell Survey, Franklin County, pumped 511 barrels of 23.3 gravity oil on initial gauge from Paluxy at 4287-4343 feet, but was plugged back from 4361 feet, or 4003 feet sub sea. It is more than one mile south of the fault plane.

78 COMPLETIONS

Tyler.—The East Texas field accounted for 78 completions the past week, including two failures drilled on the east and southwest flanks of the structure. Volume of completions was above normal because of the addition of a number of stripper wells that have been delayed in equipping for pumping gauge. There were 25 pumpers and three swabbing producers listed on the current report.

Independents have regained the lead in completing the most wells, and during the week were credited with 51 of the total.

Substantial number of wells are drilled and completed as producers each week in the East Texas field that would not be considered worth the cost of the casing and pumping equipment in other fields of comparable depth. Many independents are drilling for this type of production to lower their average operating costs per well, while others are taking advantage of the abundance of operating capital at reasonable interest rates by reason of the reputation held by the field in financial circles.

Completion of an unusually large number of wells the past week failed to cut down the total number of active rigs. A late survey of field work accounts for 205 operations, including 97 active tests; 44 standing idle; 42 derricks and rigs; and 20 locations.

WELLS INCREASE

June commission report shows Texas activity

Austin.—A total of 913 wells were added to Texas production schedules during the month of June, according to the monthly report by the Oil Accounting Division of the Texas Railroad Commission.

At the beginning of June there were 62,593 wells on production and at the end 63,506. Productive acres increased from 2,161,451 to 2,181,621.

The commission's estimate of indicated production, which is the reported production plus the allowable of leases which failed to report, was 34,353,475 barrels, as contrasted with an allowable for the same period of 35,124,801 barrels. On the basis of daily production, the average indicated for June was 1,145,115 barrels against 1,159,591 barrels daily during May.

Lease storage gained 43,108 barrels and at the month's end stood at 4,037,522 barrels.

Reported production exceeded the sum of the pipe line runs and other disposals by 43,533 barrels, indicating a discrepancy of 425 barrels between storage fluctuations and production and disposals.

EAST TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
JOINER AREA—		
Cable Tool Drl. Co., Roads-Deskin 1	6400	3778
J. L. Collins & Co. & Stroube, L. J. Pinkston 11 (53-ac)	3600	3669
Constantin & Co., Ada Rollins 1 (9.42-ac)	50	3662
E. T. DeArman & Ford Oil Corp., Crook 1-C (28.08-ac)	60	3643
Falcon Co., J. W. Ashby 7 (58.83-ac)	900	3702
Humble, A. D. Blackwell 51 (325.79-ac)	5200	3644
Ida Holt 13-B (97.8-ac)	8400	3789
Hunt Prod. Co., Bradford 16-D (170.01-ac)	350	3660
Marathon, S. H. Moores 39 (200-ac)	3600	3717
M. H. & Jim McMurrey, H. B. Dickerson 4-B (39.51-ac)	70	3610
T. W. Medlin et al, Mayfield Co. 9 (82.91-ac)	200	3854
Merry Bros. & Perini, Inc., A. Kelly 5 (90-ac)	300	3669
A. Kelly 7 (90-ac)	45	3680
Overton Ref. Co., Clay Bros. 9 (65.26-ac)	400	3610
Pet. Marketing Corp., C. L. Graham-Marathon 9-D (80-ac)	*	3697
Overton Ref. Co., Clay Bros. 12 (65.26-ac)	450	3590
Sinclair Prairie, Mayfield 71-A (374.74-ac)	3000	3770
Taubert & McKee, Turner Est. 1 (4-ac)	2500	3742
Texas Gulf Pet. Co., Hodnett-Melton-Sun 13 (134.84-ac)	4000	3671
KILGORE AREA—		
Perry Allen et al, C. N. Dickerson 3 (31.7-ac)	240	3591
C. N. Dickerson 4 (31.7-ac)	160	3588
Arcadia Ref. Co., E. Samples-Magnolia 4 (101.66-ac)	3000	3771
E. Samples-Magnolia 5 (101.66-ac)	1200	3750
Bay Oil Corp., B. B. Peterson 12 (80.65-ac)	9600	3630
Burma Oil Co., W. L. Pentecost 1-B (60-ac)	480	3490
E. T. DeArman & Bauman, C. G. Strong 2 (55.64-ac)	200	3759
C. G. Strong 3 (55.64-ac)	400	3766
E. T. DeArman & Gilster, W. A. Faircloth 1 (5.08-ac)	300	3540
Bessie DeMayo Oil Co., S. Dansby-Tidal 2 (8-ac)	5000	3735
Paul Doran et al, Polk Samples 3 (50-ac)	2800	3748
Polk Samples 4 (50-ac)	960	3745
Dyck Oil Co., G. H. Blackman 9 (50-ac)	700	3661
Gulf Oil Corp., A. Muckelroy 27 (152.05-ac)	6800	3557
T. C. Reeves 12 (78.7-ac)	7200	3540
Humble, B. F. Laird 9-B (56.92-ac)	8500	3662
Magnolia, Mose Mayfield 2 (22-ac)	120	3678
McAlester Fuel Co., Sabine River 3-U	3000	3597
Alex McCutchin & A. S. Wizon, W. Kennedy 4 (25.7-ac)	40	3679
Tom Potter & H. R. Burden, G. W. Culver 1 (55½-ac)	48	3532
G. W. Culver 2 (55½-ac)	48	3545
G. W. Culver 3 (55½-ac)	48	3532
G. W. Culver 5 (55½-ac)	120	3539
Rushwold Oil Co., C. C. Crews-Conoco 7-B (35.03-ac)	1500	3597
Sinclair Prairie, S. G. Andrews 33 (200-ac)	7000	3470
Sun Oil Co., C. Brown 14 (100-ac)	9500	3653
Witco O. & G. Co., J. M. Blackman (106-ac)	20	3699
LONGVIEW AREA—		
Arkansas F. O. Co., Burnsides 39 (209-ac)	11,000	3494
D. B. McPherson 13-B (72.4-ac)	10,500	3538
Atlantic O. P. Co., Burnsides 34-B (214-ac)	11,000	3523
Burnsides 35-B (214-ac)	11,500	3550
T. B. Harris 16 (91.54-ac)	7800	3573
H. W. Moyer 19 (128-ac)	7500	3610
Atlantic-J. K. Wadley, M. Turner 28 (159.28-ac)	10,500	3647
Bell Oils, Inc., Frank Bennett, O. J. Phillips 1 (64-ac)	500	3754
O. J. Phillips 2 (64-ac)	250	3771
Champlin-Bass, Inc. et al, A. L. Rogers 3 (15-ac)	7000	3647
FHE Oil Co., B. C. Christian 20 (88-ac)	8500	3641
Bert Fields et al, E. L. Walker 14 (140-ac)	4000	3646
FHE Oil Co.-Fleming-Kimbell Corp., R. Christian 13 (61-ac)	8500	3644
Gibson Oil Corp., W. F. Smith 5 (50-ac)	3000	3728
Gulf Oil Corp., J. C. Judge 70 (518.3-ac)	8500	3541
Hester & Silvey (was Rudco), F. P. Branson 2	240	3574
Humble, A. O. Phillips 10 (82½-ac)	600	3676
C. H. Lyons & N. F. Neely, J. Hargrages 2 (15-ac)	480	3777
Mayhughben Co.-Creslynn Corp., Widener-Magnolia 4 (98-ac)	480	3746
Petroleum Corp. of Ven., I. Walker 13 (122-ac)	1500	3639
Royal Pet. Corp., P. D. Harrison 4-B (92.3-ac)	*	3622
Saxet Oil Corp.-Dr. W. D. Jones, L. B. Miller 2 (37-ac)	1200	3733
Sigler, Lesh & McCall, M. Young 13 (50.66-ac)	10,000	3593
Stanolind, W. M. Harley 5-C (28.44-ac)	8000	3665
Stanolind-Falcon Co., F. Williams 10-B (71-ac)	4600	3709
Stanolind-Atlantic-Sun, M. Hays 12 (102.63-ac)	9200	3573
Sun, E. O'Byrne 17 (310-ac)	480	3699
Tide Water, J. J. Castleberry 23 (202-ac)	750	3626
Lake Devernia 38 (270.85-ac)	9000	3528
Tide Water-Russ Pet. Co., Flewellen 23 (210.9-ac)	3200	3733
Tide Water-Stanolind, Flewellen 39-B (374-ac)	5500	3752
J. H. Williams et al (was W. C. Knox), O'Byrne 2 (37-ac)	750	3768
ANDERSON COUNTY (Cayuga Field)—		
Kirby Pet. Co., H. W. Barton 2 (83.2-ac)	¶60	4096
Tide Water & Seaboard, Royal-Cone 1-C (253.97-ac)	500	4035
LIMESTONE COUNTY (Nigger Creek Field)—		
Monte Oil Co., A. L. Rosson 1	6	3007
FRANKLIN COUNTY (Talco Field)—		
Humble, P. J. Dawson 1 (80.45-ac)	120	4330
Magnolia-Humble, C. L. Owings 1 (160-ac)	400	4300
RH&B Oil Co. (was Earl Bateman-Al Rovenger), E. L. Phillips 1 (38½-ac)	511	4361
VAN ZANDT COUNTY (Van Field)—		
Pure Oil Co., J. T. Taylor 4 (43.8-ac)	11,000	2964
HOUSTON COUNTY—		
E. A. Ellison, Paul L. McBride et al, J. E. Bean 1	¶70-120	6037
HOPKINS COUNTY—		
D. S. Hager, W. P. Luse & Russ Pet. Co., J. E. Worsham 1	530	4500

*Failures; †Junked; ¶Million cu. ft. gas.

Trend Deeper

LOWER COAST WILDCATS INTEREST BELOW 5,000

WEEKLY STAFF REPORT

Corpus Christi.—Oil and gas showings in a series of wildcats spread attention over the entire Corpus Christi trend. The majority of these showings are at 5000 feet or below, indicating the trend toward deeper exploration.

Steinberger Petroleum Corporation's S. G. Druschell 1, on the southeastern edge of the Edna field, Jackson County, has found a series of high-pressure sands showing oil from 5357 feet to near its present depth of 6239 feet, they being in the Frio and Vicksburg. The most recent show was a gas sand at 5922-60 feet.

Calhoun County, new hot spot, was holding much attention with Continental Oil Company attempting to test at oil sand at 8812 feet. The well drilled a tremendous section of heaving shale and was in a series of sands at 8665-69 feet and 8700-20 feet and 8795-8810 feet and another topped at 8812 feet. The special type 6⅛-inch casing drill pipe was removed from the hole, but when going back to bottom, it stuck and the well has been flowing a lot of salt water apparently from the sand at 8795-8810. Efforts are being made to kill the flow so that the tests can proceed. This well is Austin (Vandenberg) 1, near Prague in Calhoun County and is the fourth test drilled by this company in the area in an effort to overcome heaving shale.

One mile north of the Heyser field, same county, Al Buchanan and Blanco Oil Company's P. H. Welder is coring for the 5400-foot discovery sand, while Humble Oil & Refining Company and Plymouth Oil Company's E. H. Welder 2, 1¼ mile southwest of the discovery, drilled to 6050 feet and has plugged back to 5469 feet where 5-inch liner has been set. It will be completed through perforations at 5466-71 feet. First attempt to complete at this level failed due to high gas/oil ratio. Welder 1-B is down 3765 feet and drilling.

A third producing horizon for the Clara Driscoll field, Nueces County, was established by O. W. Killam's Betty Ellick 2, which made an estimated 60,000,000 cubic feet of gas per day through perforations at 3887-95 feet, casing set at 3922 feet. Pressure is 1625 pounds shut in and 1475 pounds working through ¼-inch choke.

The above well is one location south of Ellick 1, which blew out several weeks ago from the same sand, making a large amount of gas along with considerable oil and salt water. The well finally was killed and plugged back to a sand at 3200 feet where it was completed as a gasser. Ellick 1 opened a sand shallower than the discovery well, while the second sand is deeper.

Mills Bennett finally succeeded in completing J. K. Ordner 1 to extend the 4000-foot sand 3700 feet west in the Saxet area. The well is flowing at the rate of 10 barrels of oil per hour through 3/16-inch choke after perforating at 4083-87 feet. Work generally in the Saxet area is centered around the 5800-foot Frio sand with a few wells drilling to shallower horizons. Saxet Heights (Corpus Christi) field, also is active, work being to the regular 4000-foot sand.

Refugio County's interest is being further increased with the merging of the Tomoconnor 5800-foot sand with the deeper sands in the Greta and Fox fields. This producing horizon is one of the most prolific along the entire South Texas Coastal trend.

La Jita Corporation's Fred Erk 1, in the Bentonville-King area of Jim Wells and Nueces County, topped the sand at 5384 feet and had cored six feet of sand. It was taking another core before making a drill-stem test. The well is one mile north of the discovery oil well and is about the same distance south of the northernmost producer in the sand. Three oil producers have been completed in this sand in the district.

COCKFIELD SHOW
Jim Hogg test would open new play

Laredo.—A new play is in prospect for the lower Mirando district as a key wildcat in the extreme southwestern portion of Jim Hogg County is in process of completion in the Cockfield at 3017 feet. The well, if a producer, will extend Cockfield trend more than 30 miles to the south and at the same time tend to definitely tie the Starr County production into the remainder of the Mirando district.

J. H. Meek and V. F. Neuhaus' F. G. Martinez 1, made a drill stem test of sand at 3010-17 feet which developed 100 feet of 47.4 gravity oil in 20 minutes through ⅜-inch top and ¼-inch bottom chokes. Casing was set at 3009 feet and plugs were drilled late in the week. The oil rates at about 70 percent gasoline content with no sulphur.

The test is located 1590 feet from the north line and 330 feet from the east line of Section 623. It is 8 miles north of the Cuevitas field, owned by Sun Oil Company in northern Starr County, and is 6 miles northeast of the Charco Redondo field of Zapata County. The well is near the town Guerra and likely will be known as the Guerra field. It is 50 feet north of Tarver & Nance's Martinez 1, drilled some time ago to 3047 feet, but which did not test this sand.

Humble Oil & Refining Company and Sun Oil Company own considerable close in acreage. Meek and associates, however, have about 5000 acres in almost a solid block.

The nearest Cockfield production to the above is the Cole field, on the Webb-Duval line, just north of the Jim Hogg County line. Some prolific producers have been completed at 2800 feet in this area.

Farther north in the Lona Vista field, Pan American Production Corporation's extension of one mile to the southwest was halted temporarily by a bad cement job in J. F. Welder 1-H. The well attempted completion at 2866 feet, but the plug-back was unsuccessful and water broke in. It is being recemented. Shell Petroleum Corporation is waiting on orders before proceeding with J. F. Welder 1-B. The well drilled to 3242 feet after passing a sand at 2861-72 feet. It ran an electric formation tester which indicated production at the above level. It is 1½ miles northwest of production.

Conservative Oil Company is testing Duval Ranch 2, 2 miles southeast of the Colmena field. The well showed sale water and oil on a production test attempted at 1543-54 feet and plugged back to perforate above 1519 feet.

Activity generally in the Mirando district is holding a steady pace. The Comitas field of Zapata County, the recent northeast extension of the Lopez field into Duval County, and the Peters field, also Duval County, give promise of enough activity to balance the decline in fields now nearing the end of their campaigns.

SECOND BROOKS DOME
Alta Mesa test has typical Coastal oil

Mission.—Second salt dome oil field for Brooks County this year appeared highly probable late this week with California Company testing a showing in the Catahoula in E. Garcia 1, on the Alta Mesa prospect. The test was drilled to 8022 feet, plugged back and perforated casing at 3024-28½ feet.

It has been jetting for the past several days making a variable amount of oil up to four barrels per hour, depending on the quantity of gas used. The oil is typical Class B Coastal crude, being 24 gravity.

The well is located 465 feet from the north and west lines of the G. Garcia tract No. 3, La Mestina de Gonzaline Grant.

The other discovery of the year in the county was Dick Young's Singer 1 on the Alta Verde prospect. The Alta Mesa field is in the extreme southwestern portion of the county, while the Alta Verde well is in the northwestern portion of the county. The Alta Verde production is at 850 feet, also in Miocene sands.

The establishment of this production leads to further salt dome exploratory work in this general district.

Union Sulphur Company is attempting to complete American Rio Grande Land & Irrigation Company 8 in the Mercedes field, Hidalgo County. It is jetting considerable 41 gravity oil through perforations at 7530-50 feet. No. 10 is nearing 5000 feet.

Harrison & Danver's (was G. W.

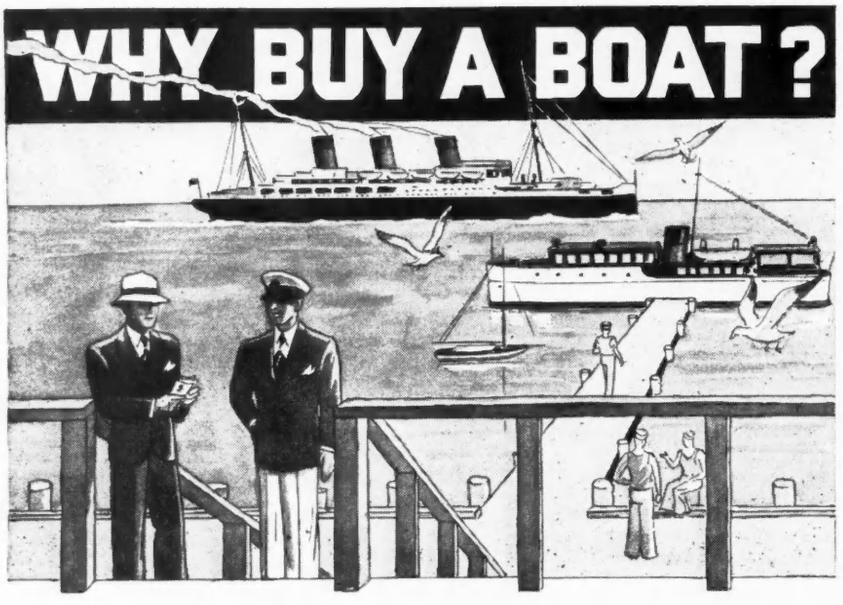
Wheeler et al) Felipe Farias 3 on the north side of the Samfordyce field, Hidalgo County, had an attempted gas blow out from around the casing in the 1700-foot sand and will recement through perforations at that level. The well is bottomed at 2955 feet where casing has been set. It showed oil and a little water in the third sand at 2944-55 feet. An attempt to complete through perforations in the second sand at 2836-43 feet showed considerable oil, but not enough pressure to flow.

Also north of the field and about 2000 feet from production, J. T. Barlow et al's Chapa 1 recorded the deep sand in sidetracked hole and set casing on bottom at 2964 feet. It perforated at 2953-55½ feet and is completing.

The new Placeta field, near Rio Grande City in Starr County, was extended 4000 feet north and west by Killam & Stagg's S. Rickaby 3, which made 20,000,000 cubic feet of dry gas from perforations at 964-83 feet. The well drilled to 1048 feet and set casing at 1033 feet.

Shell Petroleum Corporation's Yruttia 1, Willacy County wildcat, was coring ahead below 7500 feet after a series of shows above this level.

FRANK R. HARRISON, of the accounting department of Mexican Gulf Oil Company at Tampico, Mexico, is spending a vacation with his parents in Houston.



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SERPENTINE SHOW

Atascosa County test has good possibilities

San Antonio.—Establishment of serpentine production in Atascosa County appeared highly probable last week with Helvetia Oil Company's Susie Pratt 1, 1 mile northwest of Anchorage, drilling more than 250 feet of that formation, all showing some oil saturation. The well, which has an elevation of 375 feet, derrick floor, topped the formation at 2845 feet and was near 3100 feet late in the week. It will make a production test upon reaching the Austin chalk.

The well is located in a 176-acre tract in the F. de la Garza Survey.

Atascosa Trust's Doumch 1, another interesting test in this county, being located north of Poteet, topped the Edwards lime at 3930 feet and drilled to 3985 feet, where it is tied up with a minor fishing job. The lime was porous at 3931 feet and carried sulphur water. It will plug back for a test in the Austin chalk.

Amerada Petroleum Corporation has completed several Austin chalk producers in the Pearsall field, Frio County, and is running potential tests. McWilliams 1, Tract 6, deepened from 5565 feet to 5850 feet is a completion, but not gauged. Michael 2 flowed at the rate of 212 barrels per day through ¾-inch choke, but no official gauge has been made. C. A. Miller 1 is drilling at 5575 feet while W. H. Smith 3 flowed 291 barrels in 15 hours through open 2½-inch tubing under tubing pressure of 50 pounds and casing pressure of 600 pounds. It is bottomed at 5650 feet. One mile northwest of the field, Termo Company of Texas' J. L. Arp 1 is showing a very small amount of oil at 5920 feet after acidizing and shooting and looks like it will be a failure.

Eickenroht and Gallagher's O. H. Jahns 1, wildcat three miles southwest of Darst Creek in Guadalupe County, developed a leaky casing at 3204 feet and has run tubing on an anchor packer. It will swab for completion. In the same county, but 6 miles south of Kingsbury, Clark & Weinert's W. O. K. Anderson 1-A is drilling plugs after setting 6⅝-inch casing at 1739 feet. It drilled to 2508 feet after topping Edwards lime at 2495 feet, and has plugged back to test upper showings.

Several wells in outpost positions in Caldwell County were acidizing in the Austin chalk late in the week in an effort to bring about production. They, however, were showing only a small amount of oil.

Eight miles south of Devine in Medina County, Thomas & Rife's A. Zadich 1, Lubbock Survey, is reaming to drill ahead from 2440 feet. It had several fair shows in the Navarro which was topped at 1254 feet.

Corpus Christi.—Heep Oil Corporation has commenced construction of an office building in Corpus Christi from which it will carry on its South Texas operations. The new building will be located on the Leopard Street extension, just west of the local high school. Smith and Walker of Corpus Christi are building contractors and Robert Smallwood

of Houston is architect. The cost will be about $40,000.

This company is headed by Herman Heep and has shown great expansion during the past two years in the South Texas district. It has extensive holdings from the Rio Grande Valley through the entire Coastal Plane and its reserves are calculated at several million barrels.

CORPUS REFINERY

Third expansion makes capacity 8000 barrels

Corpus Christi.—Continued expansion of the oil facilities of the port of Corpus Christi is assured with another large project, the second within two weeks, being announced. The newest development includes construction of a 5000-barrel refinery unit, gas vapor plant and 330,000 barrels new storage, the total cost being in the neighborhood of $400,000. The project is in the vicinity of Avery Point, being developed as a second unit to the main Corpus Christi ship channel.

Corpus Christi Refining Company has let the contracts to Wyatt Metal & Boiler Works for construction of the refinery unit and for six 55,000-barrel tanks. E. E. Dillman, engineer, is in charge of the work which already is underway.

Contract has been let to Petroleum Engineering Company for a vapor-recovery plant for the manufacture of gasoline from refinery gas. It will process about 1,500,000 cubic feet of gas per day.

The two new units will be in addition to the company's present 3000-barrel plant. While they will be located at the same site, the plans will be operated individually. The plants will handle crudes from the several fields immediately adjoining the plant site, where this company and its associate company, Taylor Petroleum Company, have considerable production. There will be considerable of the refiner product shipped via the deep water port.

The main products to be manufactured will be high-octane gasoline, bunker oil and Nos. 2 and 4 furnace oil.

This plant was constructed as a 1000-barrel unit in 1934, it was increased 3000 barrels in 1935 and now being increased to 8000 barrels.

TAFT FIELD RULES

Austin.—Field rules issued by the Texas Railroad Commission call for wells to be drilled 660 feet apart and 330 feet from lease lines in the Taft field of San Patricio County. For wells drilled to the Plymouth sand, the 20-acre spacing rule applicable to the Plymouth field shall apply.

EMMETT FORE, of the Houston office of Gulf Oil Corporation, is in Berlin. He is a member of the United States baseball team, participating in the Olympic games. Fore was a member of the American amateur team that toured the Orient last year.

PETTUS TREND

Wildcat locations in Goliad County

Beeville.—Several new wildcat locations and testing of a Conroe sand showing in another wildcat brought Goliad County to fore as the week's key area of the Pettus trend.

Zeni Oil Company's M. Lutenbacher 3, two miles south of Goliad on La Bahia prospect, cored oil sand at 5592-99 feet after finding sand and shale streaks from 5582-92 feet. Liner has been set on bottom at 5629 feet and will be gun perforated for production test. Saline Bayou was topped at 5570 feet. Both California Company and Sun Oil Company announced new locations for the northern portion of the county on rather interesting prospects.

Claude Morgan et al's Maetze 1, on the Fannin prospect in Goliad County, but near the Victoria line, has been abandoned at 5660 feet. It showed several sands in the Jackson zone, but did not test.

R. B. Swiger's C. A. Voss 1-A, two locations northeast of the discovery well of the Voss field, Bee County, showed a high gas/oil ratio on an attempted completion at 3889-97 feet and has been deepened to 4002 feet, liner set on bottom and completion being effected through perforations in the lower portion of the producing horizon. This will be the second producer for the field.

SOUTH TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ATASCOSA COUNTY—		
W. B. Hinton, G. F. Weigand 1, 450 ft wl, 200 ft sl of tr in Donovan sur 145	*	lcn.
BROOKS COUNTY—		
Nordan, Morris & Nash, Mm. Singer 2, sec 312 (Alta Verde)	¶5	850
CALDWELL COUNTY—		
S. S. Cargill, Damerau 3 (Branyon), Cooper sur, owdd, otd 2188	10	2235
DUVAL COUNTY—		
Atlantic Oil Prod. Co., J. F. Welder heirs 6-E, sec 102 (Seven Sisters)	450	2452
Bridwell Oil Co., Wm. Hubberd 7-A, sec 71 (Loma Novia)	290	2734
Wm. Hubberd 3-D, sec 73 (Loma Novia)	225	2575
Continental Oil Co., C. D. Sevier 10a, sec 448 (Driscoll)	415	3414
Rodney Delange, Bishop Cattle Co. 10, sec 75, (Loma Novia)	230	2731
Darby Pet. Corp., J. F. Welder heirs 4A, sec 102 (Seven Sisters)	330	2438
Duval Oil Corp., O. W. Green 1, sec 118 (Hoffman)	200	2887
Highland Oil Co., M. C. Hubberd 29, sec 72, (Loma Novia)	288	2758
Humble, M. C. Hubberd 9B, sec 83 (Loma Novia)	1005	2749
T. D. Smith 18, sec 382 (Seven Sisters)	515	2461
T. D. Smith 20, sec 382 (Seven Sisters)	955	2460
J. F. Welder 9C, sec 554 (Loma Novia)	636	2767
Magnolia, DCRC 8, sec 95 (Piedre Lumbre)	50	1968
Neely 1, sec 220 (Seven Sisters)	*	2757
Navarro Oil Co., J. F. Welder heirs 2-A, sec 383 (Seven Sisters)	75	2492
Parr Oil Co., W. H. Sling 1, 330 ft sl and wl of s½, nw¼ sur 118 (Seven Sisters)	288	2485
Shasta Oil Co. & Highland Oil Co., W. R. Peters 1E, sec 117 (Peters)	*	3100
Shell Pet. Corp., Bishop Cattle Co. 5, sec 59 (Loma Novia)	75	2578
V. Mendoza 10, sec 68 (Loma Novia)	455	2815
V. Mendoza 12, sec 68 (Loma Novia)	450	2789
Westheimer & Daube, Z. Campos 14, sec 224 (Seven Sisters)	195	2708
Z. Campos 15 sec 224 (Seven Sisters)	294	2230
FRIO COUNTY—		
Amerada Pet. Co., Halff & Oppenheimer 7, B. J. Gilman sur (Pearsaly) pb td 3877	*	3926
Arthur Michael 2, A. Lynch sur 321 (Pearsall)	450	5650
W. H. Smith 3, J. V. Mason sur 322 (Pearsall)	755	5650
GOLIAD COUNTY—		
Jane Oil Co., A. D. Mudd 7, B&B sur 25 (N. Pettus)	505	3710
Claude Morgan et al, Mrs. W. O. Maetze 1, 330 ft out of ne cor of lse, Gertrude Baerrera sur	*	5660
JIM WELLS COUNTY—		
Stanolind O&G Co., Frame & Bowers 1, 330 ft out of se cor of sec 14, King Ranch subd (Bentonville) perf in 4000-ft horizon	¶7	5425
LA SALLE COUNTY—		
Roy Shipman, Mrs. T. A. Coleman 2, 330 ft sl, 2970 ft wl 500-ac tr, Jaines sur, sec 514	*	940
McMULLEN COUNTY—		
Humble, D. W. Rhodes 2, sw¼, sw¼ sec 17 (Rhodes), pb to 1780	¶5	3039
NUECES COUNTY—		
O. W. Killam, Betty Ellich 2, 930 ft nl of 86-ac tr, sec 109, Pauls subd Driscoll Ranch, 600 ft s No. 1, (Driscoll), perf 3887-95	¶60	3922
Morgan Bros., Inc. of Detroit, C. A. Bender et al 1, Harbor View Est. (Saxet Heights)	350	4067
Dodson 1, blk 12, Bancroft Farm lots (Saxet Heights)	400	4071
North Star Oil Co., Rand Morgan 8, sec 405 (Saxet)	770	5835
Pedernal Oil Co., C. R. Priour 1, blk 15, Oak Park add (Saxet Heights)	270	4084
Richardson et al, Perkins & La Gasse 4, blk 26, Sheppard Farm lots (Saxet) perf 5765-68	556	6878
C. R. Priour, blk 11, Oak Parr Add (Saxet Heights)	640	4075
SAN PATRICIO COUNTY—		
Centennial Oil Co., Chiltipin Creek 2, tr 3, (Plymouth)	425	5615
Conroe Dr. Co., G. W. Pullin 1, lot 4, sec 1 (Taft)	650	3987
Plymouth Oil Co., E. H. Welder 53C, sec 71 (Plymouth)	670	5644
Sun Oil Co., C. F. Jackson (Rosson), sec 35, Joseph Fessenden sur, 4th add, Taft Farm Lands (Plymouth)	685	5690
STARR COUNTY—		
Killam & Staggs, Sanford Ricaby 3, 450 ft el, w½ porc 83, 3407 ft s Highway 4 (Placeta), perf 964-983.	¶20	1048
Porter & Pickens, Garcia Land & Cattle Co. 3-B, 150 ft sl and el n½ blk 3, w½ porc 1 (Samfordyce)	¶10	2833
WEBB COUNTY—		
Mills Bennett Prod. Co., Joseph Valades 2, sec 73 (Lopez)	520	2157
Joseph Valades 3, sec 73 (Lopez)	575	2163
Joseph Valades 4, sec 73 (Lopez)	550	2175
C. H. Lewis, Alonzo Lopez 7, sec 110 (Lopez)	675	2256
Magnolia, S. Benavides 11, blk 6, O'Hern & Seacord subd, El Mesquite gr (Cole)	345	2867
G. G. Mortimer, Maria L. Lopez 7, sec 112 (Lopez)	425	2225
Jesus Lopez 7, sec 73 (Lopez)	575	2177
H. M. Reed, S. Benavides 1A, blk 296, Hale subd, Arispe gr (Cole)	195	2867
Superior Oil Co., W. C. Billings 13, sec 109 (Lopez)	575	2257
WILLIAMSON COUNTY—		
Fritz Fuchs, Jackson 1, 660 ft nwl 330 ft swl of Fred Murray 88-ac tr, H. Owen sur	*	2310
ZAPATA COUNTY—		
George Buck, A. P. Haynes 2, blk 4, Haynes subd, Comitas & Villa gr (Comitas)	7	936
Glover O&G Co., A. P. Haynes 17, blk 7, Haynes subd, Comitas & Villa Grants (Comitas)	47	1037
Upchurch & McKay, A. P. Haynes 6, blk 7, Haynes sub, Comitas & Villa Gr (Comitas)	138	919

*Failures; †Junked; ¶Million cu. ft. gas.

Two Discoveries

SILSBEE AND COTTON LAKE PROSPECT APPEAR BRIGHT

WEEKLY STAFF REPORT

Houston.—The Republic Production and Houston Oil Companys' Brooks 1, on Silsbee prospect in Hardin County, was burning at the end of the week. This discovery well blew out August 5 but did not catch fire until the morning of August 7. A 60-foot crater has swallowed the derrick and rig equipment, and a water well 150 feet away is blowing gas and cratering.

A drill stem test made from 6945 to 6982 feet through two ¼-inch chokes had a pressure of 550 pounds and showed 625 feet of oil that tested 43 corrected gravity at 91 degrees F. Seven-inch casing had been set at 6953 feet.

There have been estimates that the well is making 350, 400, 500 and 550 barrels of oil daily along with 40 to 50 million cubic feet of gas. The gas pressure is too great to get a fair estimate of the amount of oil being produced. However, it is definitely known that the well if under control would make a commercial producer and establish a new reserve for the Texas Gulf Coast.

An encouraging factor for Republic Production Company and Houston Oil Company is that they have around 40,000 acres in the area. The two companies have drilled two dry holes on Silsbee prospect. In each of the two dry holes a good body of sand was found, but carried salt water in the Cockfield formation.

Cotton Lake Strike

Evidence of a new oil field was shown in the Cotton Lake area of Chambers County, last week when Glenn H. McCarthy's Kilgore 1, J. Townsend Survey, made a drill stem test in the Marginulina formation and showed 28 corrected gravity pipe line oil.

At the end of the week cement plugs were being drilled after setting casing at 6290 feet. A production test was made over the past week end.

A drill stem test made on August 4 from 6296 to 6308 feet in 10 minutes through a ¼-inch choke on bottom and a ⅜-inch choke on top recovered 17 stands of pipe line oil and showed a pressure of 75 pounds. Before making the drill stem test sand and shale showing oil was cored from 6270 to 6300 feet. Cap rock was encountered at 6696½ feet, which definitely establishes a dome in the area. Glenn H. McCarthy's Kilgore 1 is approximately 375 feet higher than Salt Dome Oil Corporation and Gem Oil Company's Lawrence 2, S. Barrow Survey, Chambers County, which was abandoned last May after showing oil, which indicated it might be the discovery well for the Cotton Lake area. Lawrence 2 made a drill stem test from 6642 to 6661 feet in the Frio formation and showed 650 feet of clean 36 gravity oil in 8 minutes. Seven-inch casing was set at 6647 feet. The wildcat came in April 19, 1936, and made 214 barrels of pipe line oil in 24 hours through a ¼-inch choke, but started making salt water. The hole was carried down to 7300 feet in salt water sand and then plugged back to the producing horizon, but after making a drill stem test it was abandoned.

According to an official of an oil company who has acreage in the area of the well and also according to several scouts which were at the well when the drill stem test was made on Kilgore 1, that the only discouraging factor was that the operators did not have enough sand and that the last two inches of sand cored carried a brackish taste. It was also stated that the last 60 feet of oily mud taken from the drill stem had a brakish test. However, this will not condemn the possibilities of the well producing oil in commercial quantities, because Amerada-Stanolind's Dopsalus 1 at Fairbanks had a thinner section of sand than the Kilgore well and it made a commercial producer.

If a successful production test is made Humble Oil & Refining Company will probably make a location in the area as the company has offset leases. Gulf Oil Corporation, Salt Dome Oil Corporation and Stanolind Oil & Gas Company have acreage near the well.

This area is the seventh field discovered in the Texas Gulf Coast since the first of the year. The new field is only three miles south of Barbers Hill field, which has yielded over 51,500,000 barrels of oil and has a reserve of over 31½ million barrels.

The general area has been the scene of considerable geophysical work by several major oil companies. South Texas Geophysical Corporation is supposed to have located the Cotton Lake structure with reflection seismograph.

Anahuac Extension

Humble Oil & Rening Company's Boyt 1, 1½ miles northeast of production at Anahuac, Chambers County, developed into the largest extension to the field since Glenn H. McCarthy's White 1 extended the field over two miles in the northward direction on July 4, 1935.

Boyt 1, H. & T. C. Survey, Section 44, made a drill stem test last week in the Frio formation from 7068 to 7129 feet and showed 1590 feet of pipe line oil in 12 minutes through a ¼-inch choke on top and bottom with a pressure of 100 pounds. Seven-inch casing was cemented and after plugs are drilled a production test will be made.

Little interest was centered around the well. However, upon reaching the Discorbis marker the well was found to be running higher than the Woodley Petroleum Company's dry hole a mile north, and about flat with the Anahuac field. Then, after a gas sand was encountered around 6950 feet where the regular gas sand was found in the Anahuac field, the well started creating excitement.

Southwest of Humble Oil & Refining Company's Boyt 1, Gulf Oil Corporation discovered a fault at Anahuac when its Knowles 1 was drilled to 8749 feet and failed to pick up the regular producing horizon. The well was an east offset to several producing wells. Later the company drilled south of the dry hole and found production. With Gulf Oil Corporation developing a fault on the northeast side of the field, it was generally thought Humble Oil & Refining Company's location over 1½ miles from the dry hole in the northeasterly direction was in unfavorable territory. To further indicate that Boyt 1 would not find production was Humble Oil & Refining Company's Johnson 1, one mile south of Boyt 1, which was running lower than other wells drilled in the field.

If Boyt 1 proves a commercial producer it will add over 1500 more acres to Anahuac, and will raise the reserves for the field. Already the reserve is placed at around 275 or 300 million barrels with around 9800 acres proved. The extension test also proves up more acreage for Gulf Oil Corporation, who has acreage on nearly all sides of the well and it may also bring Magnolia Petroleum Company into the field as it has acreage west of the well.

Gulf Oil Corporation has made location for Knowles 4, 723.75 feet south of Knowles 3. The well is located 1155 feet north along the west line of the W. T. Knowles Survey from the southwest corner thence 463 feet east at right angles to said line.

The northern part of the field was being extended west last week by Sun Oil Company's White 16, James McGehay Survey. The well was coring in shale at 6951 feet after coring oil sand from 6922 to 6942 feet. The well will be carried down to the Frio sand at 7082 feet and completed at that depth. If a commercial producer it will extend the field 933 feet west.

Humble Oil & Refining Company is having considerable trouble in bringing White B-2 and White 12 in for production. White B-2, on the northwest side of the field, was drilling ahead in sand showing oil at 7128 feet after making a production test at 7113 feet. The well had too high a gas/oil ratio and was killed. White 12 on the north flank of the field, was cutting and pulling liner at 7128 feet after being perforated from 7117 to 7120 feet with 12 shots. The well has failed to flow. Two and half-inch tubing was hung at 6876 feet. The well will be carried deeper and another production test made.

Humble Oil & Refining Company has made location for Johnson 4 and White B-5 at Anahuac. Johnson 4 is 466 feet south of the north line and 1336 feet west of the east line of Sec-

tion 47. White B-5 is 466 feet each way out of the northeast corner of the White "B" lease in the James McGahey Survey.

On top of Danbury dome, Brazoria County, Humble Oil Refining Company's Moller 1 was drilling below 6336 feet in shale after coring oil sand from 5932 to 5945 feet and from 6151 to 6156 feet. A drill stem test made from 5920 to 5945 feet in 20 minutes showed 510 feet of oil and mud through two ¼-inch chokes. On a drill stem test from 6145 to 6156 feet two stands of mud and 65 stands of salt water were recovered. The test was made through two ¼-inch chokes in 25 minutes. Moller 1, S. A. Towsey Survey, cored a gas sand from 5686 to 5696 feet.

The Hastings field, Brazoria County, was extended in Galveston County last week when Stanolind Oil & Gas Company's Elliott 1, Wm. Henry Survey, was completed at 6065 feet from the Marginulina sands. The well on a potential test made 387 barrels daily through a ¼-inch choke with a tubing pressure of 920 pounds. Oil sand was encountered from 6036 to 6063 feet.

On the northwest side of the Hastings field, Brazoria County, Stanolind Oil & Gas Company completed Reckhardt 1, H. & T. B. Survey, No. 29, at 5835 feet. On a potential test the well made 630 barrels daily through a ¼-inch choke with a tubing pressure of 940 pounds and a casing pressure of 920 pounds.

The most northwestern well at Hastings, Stanolind Oil & Gas Company's W. H. Avitts B-1, H. & T. B. Survey, No. 29, was waiting on cement to set after coring oil sand to 5997 feet. If the well is a commercial producer it will extend the field.

Stanolind Oil & Gas Company has made two new locations on the northwestern side of the Hastings field. Avitts B-2 is 330 feet north of the south line and 1028 feet east of the west line of the Avitts "B" lease in the H. & T. B. Survey, No. 29. Brown B-3 is 330 feet north and 330 feet east of the southwest corner of the Brown "B" lease in the H. & T. B. Survey, No. 29.

Two miles south of the Green's Lake field, Galveston County, Sun Oil Company abandoned Houston Farms Development Company 1, D. Buckley Survey, at 4054 feet in salt water sand topped at 4038 feet. The well also cored salt water sand from 3650 to 3667 feet.

The Texas Company completed the second well on the west side of the Withers field, Wharton County, last week when Pierce Estate B-2, 1800 feet northwest of Pierce Estate B-1, made an estimated 1,000,000 cubic feet of gas daily and a small amount of oil through a ¼-inch choke from 5554 feet. Tubing and casing shut in pressure was 2050 pounds.

On Midfield prospect in Matagorda County, Ohio Oil Company's (Marathon) Kountz 1, I. & G. N. Survey, No. 11, was abandoned last week at 7000 feet after coring salt water sand in the Frio formation from 6127 to 6161 feet.

On the east flank of Hawkinsville dome, T. Williams Survey, Sun Oil Company's Craig 1, which showed several times for a commercial producer at 5150 feet, was being put on the pump. The well has been swabbed for several weeks and it made approximately 15 barrels daily. Some times the well would flow for a little while and then would die out.

At Eureka in Harris County, Houston Oil Company's Lackner 1, H. Reinerman Survey, 1000 feet southeast of the discovery gas well, was resetting screen. During the past week the operators attempted to set screen a couple of times but could not get to bottom. Lackner 1 was drilled and cored to 7682 feet and topped a gas sand at 7662 feet in the Upper Saline Bayou. Seven-inch casing was cemented and the production test attempted. The operators will probably make a production test the coming week. The well is expected to make gas and distillate the same as the discovery well. The discovery well is producing from 7662 feet.

Gulf Oil Corporation completed Fairfield 1, Lockridge prospect, Wm. Robeson Survey, Brazoria County, last week to open a new gas field with possibilities of oil in the future. The well was completed at 6267 feet after perforating the casing with 11 shots from 6264 to 6267 feet. It made an estimated 1,000,000 cubic feet of gas daily through a ⅛-inch choke. Tubing pressure was 1700 pounds. Another location will be made in the area and gas from Fairfield 1 will be used for drilling fuel.

The hole was drilled to 8689 feet in the Jackson formation. While drilling Fairfield 1 showed as a commercial producer at 6260 feet, where it flowed 85 barrels of 42 gravity oil through a ¼-inch choke. The well later started making salt water and was drilled deeper to 8689 feet. The hole was plugged back several times and drill stem tests were made which showed salt water.

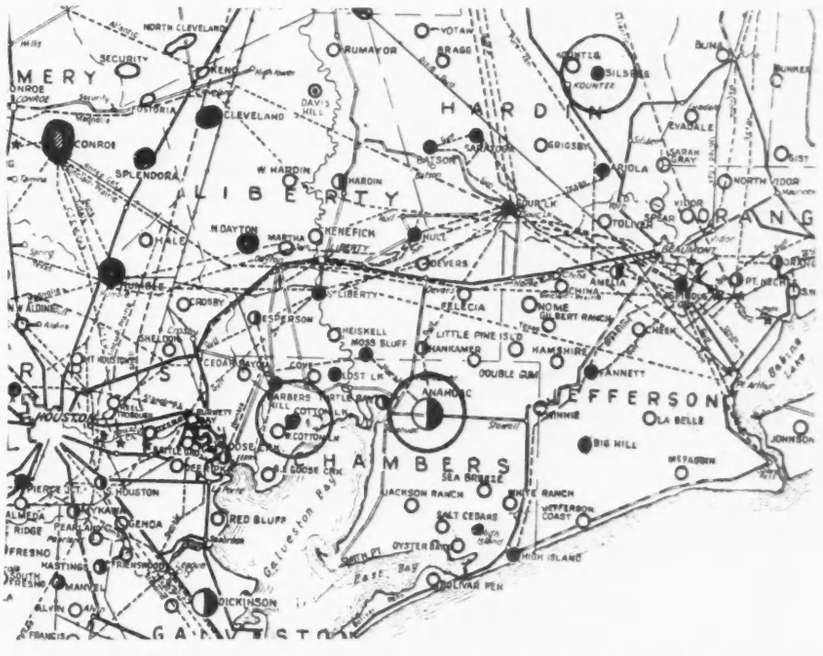
On the Willis prospect in Montgomery County, W. O. Belnoski's Wood 1, Wm. Weir Survey, was completed last week for a small amount of gas and 10 barrels of salt water daily through a ⅛-inch choke with a 450 pound pressure from 3739 feet in the Cockfield formation.

Shell Petroleum Corporation's Carpenter 1 the discovery well for the Nome field, M. Peveto Survey, Jefferson County, was given an allowable of 130 barrels

TEXAS GULF COAST
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ANAHUAC—		
Humble, Tyrell 7	696	7082
BARBERS HILL—		
Sinclair-Prairie, Wilburn 15 (wo)	112	5120
Texas Gulf Prod. Co., Fitzgerald 2 (wo)	270	5085
Kirby B-21 (wo)	134	5320
BIG CREEK—		
Tran-State Oil Co., Ahlers 3	120	3375
BLUE RIDGE—		
Texas Gulf Prod. Co., Blakely 13	435	3458
BOLING—		
Mackhank Oil Co., Farmer 1	240	4416
CLAY CREEK—		
Sun Oil Co., Draeger 4	¶1	1148
CONROE—		
Navarro Oil Co., Brown 1 (wo)	468	5079
Strake Pet. Corp., Keystone Mills 9	495	5020
ESPERSON—		
General Crude, Moores Bluff 17	145	2730
GREENS LAKE—		
Sun, Houston Farms Development Co. 1	*	4054
HASTINGS—		
Stanolind, Elliott 1	387	6065
Reckhardt 1	630	5833
HULL—		
Republic Prod. Co., Baldwin B-1	325	5032
LIVINGSTON—		
Humble, Grandbury Smith 29	312	4278
RACCOON BEND—		
Humble, Thompson 9-X (wo)	61	4132
SOUTH HOUSTON—		
Stanolind, Johnston 1	456	4775
SOUTH LIBERTY—		
R. R. Lawrence, Vandeventer 1	50	3858
TOMBALL—		
Humble, Holderrieth 3	112	5558
Tomball Townsite 1, Unit 3	528	5581
WITHERS—		
Texas Co., Pierce Estate B-2	¶1	5554
Pierce Estate C-9	¶1	5569
BRAZORIA COUNTY—		
Gulf, Fairfield 1, Lockridge prospect, Wm. Robeson sur	¶1	6267
MATAGORDA COUNTY—		
Marathon Oil Co., Kountz 1, Midfield prospect, I&GN sur No. 11	*	7000
MONTGOMERY COUNTY—		
W. O. Belnoski, Wood 1, Willis prospect, Wm. Weir sur	¶½	3739

*Failures; †Junked; ¶Million cu. ft. gas.



Encircled are two former prospects and an oil field which held interest of operators in the Gulf Coast last week. The Silsbee prospect, Hardin County, was converted into an oil field, and a drill-stem test at Cotton Lake showed oil.

daily by the railroad commission. Sun Oil Company Paggi 2, south of the discovery well was drilling in shale at 2250 feet at the end of the week.

Glenn H. McCarthy made another location at Amelia field, Jefferson County, last week. Longe 2-A is 150 feet west of the east line and 820 feet north of the south line of lease in the H. Williams Survey.

Sun Oil Company made a location at Turtle Bay last week for C. J. Chambers 1. This is the first operator to enter the Turtle Bay field, Chambers County, other than Stanolind Oil & Gas Company, the discoverer of the field. The new well is located 330 feet west of the east line and 330 feet north of the north shore of Turtle Bay in the G. B. Jamerson Survey. It is a south offset to Stanolind Oil & Gas Company's Middleton 2.

Second Deepest

CONTINENTAL'S ABBEVILLE TEST BELOW 11,450 FEET

Lake Charles.—Continental Oil Company's Alvin Hebert 1, Section 20-12s-3e, on the Abbeville prospect in Vermilion Parish, is the second deepest well in the world. It passed General Petroleum Corporation's Berry 1, Kern County, California (11,377 feet) last week when it was drilling below 11,404 feet at the close of the week. The company is seeking a new world record for deep drilling, and proposes to go to 13,000 feet. The deepest hole ever drilled was Gulf Production Company's McElroy 103, West Texas test, which was abandoned at 12,786 feet in May, 1935. It is reported but not confirmed that if the Hebert test reaches 13,000 feet and if the hole is in good condition, equipment manufacturers will carry the well down to deeper horizons for experimental purposes.

At 11,404 feet the test was drilling in a 6-inch hole which was off vertical not more than one degree. No major fishing jobs have been encountered while drilling below 11,000 feet. Hole is being made at the rate of approximately 75 or 85 feet a day and with this speed should be down to the record depth in two or three weeks.

On the Charenton prospect in St. Mary Parish, Mike Hogg's Lawes Realty Company 1, Section 30-13s-10e, was drilling below 5737 feet in shale after attempting a drill-stem test from 5082 to 5102 feet in oil sand. The drill-stem test was made in 6 minutes through 2 ¼-inch chokes but the testing tool failed to hold and failed to make any recovery from the sand. The previous week a drill-stem test was made from 4148 to 4181 feet in the Miocene formation and showed three stands of saturated oil sand.

Jefferson Lake Oil Company abandoned Lake Peigneur 274 at Jefferson Island dome, Iberia Parish, last week at 6624 feet in a side-tracked hole. The test was drilled to 8610 feet in salt after having several showings of oil and gas up the hole. At 7145 feet a gas sand was cored and then heaving shale and a fishing job were encountered. After again topping heaving shale at 8315 feet the 144 feet of drill stem was lost in the hole. Seven-inch casing was cemented at 8424 feet after the hole was cleaned out. Sand showing oil was encountered from 8447 to 8467 feet which showed 17 ohms on an electrical logging device. The hole was swabbed at this depth but showed salt water. Additional casing was cemented onto the seven-inch casing after drilling into salt at 8474 feet. Over 500 feet of blank liner was set. The operators swabbed around 160 barrels of oil. The hole then was plugged back and perforated a number of times but each test failed to show oil in commercial quantities. Jefferson Lake Oil Company is reported to have purchased the well from Edwards Drilling Company and attempted to complete. After milling for some time the hole was finally carried down to the abandoned depth.

Pure Oil Company made location on the Mallard Bay 15,000-acre prospect last week. State Mallard Bay 1 is 2394 feet south, 268 feet west of the north-

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GRIZZLY POWERFLEX ROTARY HOSE

east corner of Section 22-13s-3w, Cameron Parish. Pure Oil Company has done considerable work in the area with reflection seismograph and torsion balance. This prospect was taken from Glassel who had leases on the bay.

Another wildcat location was made in Cameron Parish last week by Magnolia Petroleum Company; Johnson Bayou School Land 1 on the Johnson's Bayou prospect is tentatively located 330 feet south and 330 feet west of the northeast corner of NW Section 16-15s-14w. Magnolia Petroleum Company has around 26,000 acres in the Johnson's Bayou area and has worked with geophysical instruments. Humble Oil & Refining Company worked the area with reflection seismograph in 1935. The Johnson's Bayou prospect once was held by Sun Oil Company and Yount-Lee Oil Company. Sun Oil Company drilled one deep dry hole.

On the southwest side of the Tepetate field, Acadia Parish, Continental Oil Company's Houssiere 1, Section 33-7s-2w, was coring shale at 8337 feet below the regular producing horizon at Tepetate. It apparently defines the field in this direction. On the northeast side of the field the operators Welsh A-4, Section 28-7s-2w, was running an electrical logging device in sand showing oil at 8320 feet. A string of 5¾-inch casing probably will be run to the bottom and a production test made. The same operator's Homeseekers A-5 was waiting on cement to set at 8320 feet after setting a string of 5¾-inch casing to the bottom.

Gulf Oil Corporation's Lafourche Levee Basin District 5, Lake Hermitage, was drilled to 5005 feet in salt after topping the formation at 5003 feet. It was plugged back to 3729 feet and made a test which showed salt water. At the end of the week it was testing a show of oil at 4698 feet.

On the northwest side of the New Iberia field, Iberia Parish, The Texas Company completed L. P. Bryant 1, Section 25-12s-7e, for 576 barrels daily through ¼-inch choke with a tubing pressure of 675 pounds. The oil tested 27.6 gravity. The hole was drilled to 4436 feet in oil sand after topping the formation at 4416 feet. A string of 7⅝-inch casing was cemented at 4414 feet.

A new deep drilling record was set in the Dog Lake field, Terrebonne Parish, when The Texas Company penetrated formations to 8165 feet last week and abandoned the hole in heaving shale. The well is located in Section 5-22s-16e. The former deepest hole was The Texas Company's Dog Lake 18, which discovered a new sand at 7128 feet.

SOUTH LOUISIANA
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
DOG LAKE—		
Texas Co., L. L. E. Dog Lake 3..	*	8165
DARROW—		
Humble, Gamble	696	5763
NEW IBERIA—		
Texas Co., L. P. Bryant 1.....	576	4436
IBERIA PARISH—		
Jefferson Lake Oil Co., Lake Pieg-neur 274, Jefferson Island dome 12s-5e	*	8610

*Failures; †Junked; ¶Million cu. ft. gas.

Small Extension

RODESSA ENLARGED ON ITS SOUTHWESTERN EDGE

NORTH LOUISIANA

WEEKLY STAFF REPORT

Shreveport.—The southwest part of the Cass County, Texas, side of the Rodessa field continued to hold the greater part of the development program of the field, although there continues to be an increase of activity in the northeast offshoot of the field. The southwest limits were extended one 660-foot location north last week when Superior Oil Company of California completed Chew 2, Robert Trammell Survey, flowing 35 barrels of oil per hour from a depth of 6003 feet through 30/64-inch tubing choke, with casing pressure 350 pounds and tubing pressure, 500 pounds. It is a north offset to the same company's recently completed Chew 1 in the same survey. A northwest edge well on the Cass County side that showed considerable salt water at 6047 feet was successfully plugged back to 5952 feet and completed flowing 339 barrels of oil in 24 hours through quarter-inch tubing choke. This is Magnolia Petroleum Company's Haywood 3, Priscilla Evans Survey.

On the Louisiana side of the field, Phillips Petroleum Company completed three wells in the northeast part of the field, as follows: Adams 3, Section 17-23n-15w, flowing 330 barrels in 24 hours through quarter-inch tubing choke with tubing pressure 650 pounds and casing pressure, 350 pounds; Robinson 1, NE NE SE 18-23n-15w, flowing 160 barrels of distillate in 24 hours at 6028 feet through quarter-inch tubing choke; and Norton 6, NW SE NW 17-23n-15w, flowing 20 barrels per hour through quarter-inch tubing choke at 6059 feet.

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SHREVEPORT, LOUISIANA — PELCO — Lake Charles—Houma—Converse Rodessa—Monroe—Turnertown Greggton

Parish side of the field two wells were completed. United Gas Public Service Company's Mitchell 2, NW SW 20-23n-16w, a west offset to Mitchell 1, and one location westward toward the Texas line, was completed at 5932 feet flowing 58 barrels per hour through half-inch tubing choke, with tubing pressure 250 pounds and casing pressure 550 pounds. W. F. Lacey's Tyson 2, SE NW 24-23n-16w, was completed at 5990 feet flowing 14 barrels per hour through half-inch tubing choke with casing pressure 1950 pounds and tubing pressure 1800 pounds.

On the north edge of production, Standard Oil Company of Louisiana's Caldwell 5, Section 12-23n-16w, was completed at 6040 feet flowing 54 barrels per hour through half-inch tubing choke with casing pressure 200 pounds and tubing pressure 100 pounds. . .

Three Deep Disappointments

Three deep tests in unproven territory proved disappointing in North Louisiana last week. For the second time in the last fortnight hope of getting oil production on the southwest flank of the Sligo structure gas field in Bossier Parish that several months ago yielded a gas-distillate well from 5300 feet in what was identified as corresponding to the Young sand at Rodessa, has been dashed. Last week, Producers Oil & Gas Company's H. L. Skannal 1 (Webb), W½ SW 22-17n-12w, tested three fourbles of salt water in 15 minutes in a drill stem test at 5274 feet. It will probably be abandoned. The cores had shown rich distillate content. Elevation is 164 feet. Previously United Gas Public Service Company's Skannal D-1, NE NE 22-17n-12w, had shown salt water at 5315 and 5182 feet when tested but it has been plugged back to the 4300-foot level (Hill zone) and completed as a 21 million-foot gasser after casing was perforated.

Hope of gas production from the top of the Travis Peak in the shallow Blanchard gas field also dimmed when United Gas-Pyramid Oil & Gas Company's Wheeler A-1, Section 16-18n-16w, which in a drill-stem test at 5911 feet in Travis Peak had shown 11 million feet of dry gas, tested 7 to 8 million feet of gas and a heavy flow of salt water after 1998 feet of 5-inch casing had been cemented after the drill stem test. A bad cement job was blamed for the appearance of the salt water which was immediately preceded by a fresh water flow and the well has been killed and an effort will be made to complete it successfully.

Prairie River Syndicate's (Smitherman et al) Hutchinson 1, SW NW 15-15n-12, south Caddo Parish, which logged anhydrite from 3985 to 4475 feet, was dry when formation tester was run at 4702 to 4809 feet and is coring ahead.

Gulf Oil Corporation logged anhydrite at 2935 feet (elevation 77 feet) in Rhymes 15, NW SE SE 32-17n-6e, an oil test in the old Richland Parish gas field and is drilling ahead below 3500 feet. Whitehurst and associates' Whitney Corporation 1, Section 8-9n-13w, a deep test in the shallow Converse field, Sabine Parish, logged first anhydrite stringer at 4603 feet and is drilling head around 4700 feet. In Bienville Parish, J. W. Leonard's Courtney Heirs 1, SE NE 5-17n-7w, is reported to have logged anhydrite at 4858 feet and is coring ahead below 5258 feet.

In Shelby County, Texas, a few miles west of the Louisiana line, H. A. Stebbinger's Pickering Lumber Company 1, C. F. Henry Survey, near Joaquin, which is below anhydrite of the Glen Rose shut down at 5000 feet temporarily after several gas and distillate shows in fossiliferous lime. However, paleontologists failed to find any oolites in this lime so far, previous superficial identifications being oolitic lime.

Renewed Interest

With three deep tests for the Glen Rose below the anhydrite under way on the southwest flank of the Sabine Uplift, two of which are already drilling and the third ready to spud, there has developed a renewed interest not only in leasing in two East Texas border counties, Panola and Shelby, location of the three tests mentioned, but across the Louisiana line in western DeSoto Parish.

In townships 11 and 12 north, ranges 15 and 16 west, Ohio Oil Company has blocked considerable acreage around the town of Logansport, and in an area where Arkansas-Louisiana Gas Company, Shell Petroleum Corporation and several independent companies have spreads.

R. O. Roy of Shreveport, who recently made location for a test on a 9000-acre block centering in Section 15-16n-10w, Bienville Parish, said the test will be drilled so that it can be taken to 6000 feet. Roy has completed core-hole drilling and one shallow test on this block. In township 15 north, range 10 west, Devonian Oil Company has been buying a few leases.

Franklin Parish has been the scene of recent leasing by Gulf Oil Corporation which has approximately 5000 acres of leases in township 15 north, range 7 east and in township 11 north, range 9 east. United Gas Public Service Company recently assembled a 4500-acre block.

A geophysical high is reported to have been found around Section 9-16n-1w, Jackson Parish on a 14,000-acre block assembled by Smitherman and associates of Shreveport. Approximately 350 acres of this block was bought in fee from the National Farm Loan Association. J. K. Wadley of Texarkana is reported to have secured an interest in this block.

J. E. Farrell of Fort Worth, Texas, has taken a quarter interest in a 6500-acre block recently assembled in Morehouse Parish by Howard M. Jones of Shreveport. This block centers in Section 10-22n-7e and is said to carry a drilling obligation to spud a 5000-foot test by the first of September.

In Caddo Parish, Manahan Oil Company bought a quarter interest in an 11,000-acre block assembled by Prairie River Syndicate in township 15 north, range 12 west, where a test is now drilling below 4800 feet. Manahan secured its interest from Blackwell Oil & Gas Company which owned a half interest in the acreage.

NORTH LOUISIANA Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CADDO PARISH (Rodessa)—		
W. F. Lacey, Tyson 2, 24-23n-16w	1000	5990
Phillips, Robinson 1, 18-23n-15w	800	6028
Norton 6, 17-23n-15w	2000	6059
Adams 3, 17-23n-15w	900	6045
Standard, Caldwell 5, 12-23n-16w	2500	6040
United Gas, Mitchell 2, 20-23n-16w	2000	5932
CASS COUNTY, TEXAS (Rodessa)—		
Magnolia, Haywood 3, Priscilla Evans sur	800	5952
Superior, Chew 2, Robt. Trammell sur	3000	6003
BOSSIER PARISH (Bellevue)—		
Premier Inv. Co., Wyche 20, 14-19n-11w	70	430
MOREHOUSE PARISH (Monroe)—		
United Gas Pub. Serv. Co., Tensas Delta 18, 35-22n-4e	¶2	2214
Tensas Delta 29, 17-22n-4e	¶3	2180
LA SALLE PARISH (Urania)—		
Montague Oil Co., Zenoria Lbr. Co. 7-A, 10-9n-1e	10	1520
RED RIVER PARISH—		
T. G. Shaw, Teekel 1, 34-13n-10w	40	2830
SABINE PARISH (Converse)—		
A. C. Scott, Bowman-Hicks 1, 23-9n-13w	10	1700

*Failures; †Junked; ¶Million cu. ft. gas.

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HOUSTON, TEXAS

In Lincoln Parish, Marvin Mueck has assigned a 5300-acre block centering in Section 26-18n-5w, to A. R. Wherritt of Shreveport. Charles Baunoch originally assembled the block. Sultana Oil Corporation has been taking some leases in the same area.

In Ouachita County, John J. Meyers of Monroe has completed a 10,000-acre block centering in Section 5-17n-4e. In Union Parish, Arkansas Fuel Oil Company has taken some scattered leases recently in townships 22 and 23 north, ranges 2 and 3 east. In the same area Magnolia Petroleum Company has been taking a few leases.

Inspired by the starting of two Glen Rose tests in the county since it assembled its block over a year ago, Danciger Oil & Refining Company is reported to have revived its location for a 5500-foot test in Shuttleworth 1, A. Bissell Survey, in southeast corner 35.5-acre tract, Panola County, Texas. Continental Oil Company recently started taking leases in this county in the Enoch Bradshaw Survey.

The spread of the Cass County part of the Rodessa field has sent leasing farther afield north and south of the Rodessa trend as indicated when 16 miles north of Linde, Cass County, Pure Oil Company leased 2500 acres centering around the western part of the John Graham Survey and in southern Marion County bordering the Harrison County line. Texas Company leased the 432-acre J. H. Benefield tract, in the Thomas English Survey.

LOUISIANA PERMITS

Shreveport. — Nineteen drilling permits were authorized last week by the minerals division, Louisiana Conservation commission. Of these 14 were for North Louisiana divided among the following parishes: Caddo, 11, ten of which were in Rodessa; DeSoto, 1; LaSalle, 1; and Webster, 1. The 5 in South Louisiana were divided among the following parishes: Acadia, 1; Calcasieu, 1; Iberia, 2; and St. Landry, 1.

ARKANSAS PERMITS

El Dorado, Ark.—Two drilling permits were authorized last week by the Arkansas Board of Conservation, as follows: Cleveland County—A. B. Diffie et al, Tulsa, Oklahoma, L. C. Ross 1, located 330 feet south and west NEc SW NE 11-11-11; Crawford County—Citizens Gas Company, Fort Smith, Arkansas, J. W. Joyce 1, located 300 feet east of state line, 300 feet south of north line fraction west half SW quarter 6-9-32.

ARKANSAS
Completions

Company, Well and Location		Init. Prod. Bbls.	Depth
MILLER COUNTY—			
Deep Rock Oil Co., Williams 1, 6-15-25	*		4434
UNION COUNTY—			
Geo. W. James, Sullivant 2, 12-17-14	*	3300	
OUACHITA COUNTY (Snow Hill)—			
Lion O. R. Co., Reynolds-Berg 1, 28-15-15	¶	35-480	4896
Jno. Pugh, Hildebrandt 1, 28-15-15	*		4904

*Failures; †Junked; ¶Million cu. ft. gas.

Going Deep

SNOW HILL TEST WILL TRY TO PALEOZOIC

WEEKLY STAFF REPORT

El Dorado, Ark.—Announcement by Phillips Petroleum Company that it will deepen Arnold 1, NE SW 27-15-15, Ouachita County, Snow Hill district, through the Permian lime unless production is found in that formation, to the Paleozoic basement floor, has cheered the oil fraternity of South Arkansas no little. Leasing and geophysical activity continue high despite the appearance of salt water in top of the Permian at Snow Hill. Last Week Arnold 1 was drilling at 5335 feet.

Phillips Petroleum Company is reported to have exercised its geophysical option on Crossett Lumber Company acreage in township 17, range 9, Ashley County, which acreage is needed in completing the arch of the supposed Permian lime trend into northeast Louisiana.

In Columbia County, Eastern Texas Petroleum Company has shot an 8500-acre block centering in Section 11-19-19, and exercised its option planning an immediate 4000-foot test which may go to 6000 feet. In township 13, range 9, Bradley and Drew Counties, S. M. Cagle has assembled a 12,000-acre block.

In Little River County, Guest and associates of Texarkana have assembled an 8000-acre block in townships 12 and 13, ranges 29 and 30, and the same operators have taken over 4000 acres in Miller County around township 18, range 27. In Miller County, Erwin & Leach who recently drilled with Ohio Oil Company a 7700-foot test in LaFayette County near Stamps, have completed a 12,000-acre block in townships 17 and 18, ranges 25 and 26.

In Ouachita County, H. L. Hunt, Incorporated, has bought approximately 2000 acres in townships 13 and 14, ranges 18 and 19. In Union County, The Texas Company recently has been leasing in township 19, range 10.

NEW PRODUCER
And a dry hole for Snow Hill Permian lime

El Dorado, Ark.—One new gas-distillate producer and one failure were chalked up last week in the Snow Hill Permian lime district of Ouachita County. Lion Oil Refining Company's Reynolds-Berg 1, SE SE NE 28-15-15, was completed at 4896 feet flowing 20 barrels of distillate per hour through a small choke and making 35 million feet of gas. The well, due to high pressure, is proving difficult to control. John Pugh's Hildebrant 1, SE SE 28-15-15 was abandoned as a salt water hole at 4914 feet.

Benedum and Trees after extensive geophysical exploration of a 15,000-acre block in Nevada and Ouachita counties, Stephens district, last week made location for a Permian lime test in center north half SW NW 10-14-20, Nevada County. This firm several months ago before Snow Hill was discovered drilled a test in Ouachita County to the Travis Peak.

In Miller County, Deep Rock Oil Company's Williams 1, NW SW NW 6-16-25, was abandoned as a dry hole at 4434 feet after logging Coquina lime at 4304 feet and oolitic lime at 4370 feet; elevation was 232 feet.

OIL IN FLORIDA TEST

Groveland, Fla.—Real live oil is said to have been encountered in the South Lake well of Oil Development Company, which is located in SE SE 17-24s-25e, Lake County, Florida. The first oil was oil in a core pulled from 5000-05 feet. The next core, from 5005-06½ feet, also showed oil. Since this time, the well has been cored slowly ahead three to four feet at a time. At 5022 feet, the last reported depth, the well was still in the formation, which consist of dark grey shale and grey and brown limestone. The oil is thought coming from the limestone. Drilling has been ordered suspended until the formation is tested. Prior to penetrating the 22 feet of oil carrying horizon, 300 feet of gas formation was found. The gas exuding from the cores releases an obnoxious fume that has made many visitors to the well ill.

Jackson, Miss.—Westbrook, Stewart & Thompson of Fort Worth, Texas, have secured from the Mississippi State Mineral Lease Commission a geophysical option on the 17,000-acre Mississippi state prison farm at Parchman, in Sunflower County, in the Mississippi Delta. The option is for one year and if exercised will call for a 6000-foot test. These operators 3 years ago had a large block of leases in Bolivar and Sunflower Counties on which they drilled 5 tests to approximately 3500 feet, all to top of the Cretaceous.

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HOUSTON, TEXAS

Two at Medicine Bow

50-60 BARRELS PER HOUR IN EARLY STAGES

ROCKY MOUNTAIN FIELDS — WEEKLY STAFF REPORT

Rawlins, Wyo.—Two good wells in the Medicine Bow field, Carbon County, south central Wyoming, of Ohio Oil Company are at the completion stage. Union Pacific 2, C NE NE 35-21n-79w, made 60 barrels per hour through casing at 5508-5586 feet. It drilled to 5596 feet and is running tubing to test. The 7-inch casing was set at 5508 feet. Union Pacific 3, C NE SE 23-21n-79w, made an estimated 50 barrels per hour through drill stem and is coring at 5557 feet. The Sundance sand was topped at 5526 feet.

Ohio Oil Company is running the 2½-inch tubing to test production in Diamond Cattle Company 7, CN 35-20n-78w, a near completion in the Rock River field, Carbon County. The 6⅝-inch casing was set at 3150 feet and hole bottoms at 3180 feet. State 4, NE NE 34-20n-78w, Rock River, plugged back to recomplete at 3070 feet in the Dakota. Water was encountered in the Sundance topped at 3408 feet.

On Quealy Dome, in Albany County, The California Company's Wilson 2, SW 18-17n-76w, is drilling at 2330 feet.

Eastern Wyoming

First report of Ohio Oil Company in the Lance Creek field, Niobrara County, eastern Wyoming, last week, Richards & Comstock, 450 feet north of the CNE 32-36n-65w, has rig up. Carrie Putnam 5, CNW SW 33-36n-65w, Lance Creek, is drilling at 3893 feet. Light oil sand was topped at 3886 feet.

South extension test for the Sundance pool at Lance Creek, of the MacKinnie Oil & Drilling Company is drilling at 3615 feet. Thompson 1, NE SW NE 7-35n-65w, last week cored excellent oil saturation in the second bench of the Dakota sand at 3349-69 feet. It did not stop to make a production test in this sand but it is estimated for 300 to 600 barrels daily. Oil and gas shows were also encountered in the first Dakota at 3310-49 feet. It is reported drilling in the top of the Morrison formation.

Northern Wyoming

One new well started in northern Wyoming oil fields this week as Ohio Oil Company's Robert Till 1, CSE SW 24-56n-97w, in the Byron field, Big Horn County, is still in the process of being completed. Well swabbed 40 barrels of oil in 14 hours and operators are moving in portable pumping unit. The Tensleep sand was had at 5333-5417 feet and the Embar lime at 5260-5333 feet. The 7-inch production string is set on top of the Embar. The company has rig up for Irene Lindsay 1, CNW SE 23-56n-97w, in the Byron field, Big Horn County. Orson Vail 1, CNW NE 23-56n-97w, Byron, is drilling at 4847 feet in the red beds.

In the Grass Creek field, Hot Springs County, Ohio Oil Company's Mill Iron Cattle Company 73, NE SW 19-46n-97w is coring at 3896 feet. Embar lime was topped at 3840 feet where the 7-inch casing is set. Saturation was topped in the Embar at 3854 feet.

Sidney H. Keoughan and Taylor Oil Company's Robinson 1, SW SW NW 24-56n-97w, in the Byron field, Big Horn County, is spudding.

In the Kirby Creek field, Hot Springs County, Fredenthal et al's 6, SE SE NE 21-43n-92w, is drilling at 375 feet.

West Central Wyoming

Sinclair-Wyoming Oil Company's Muskrat 2-C, NE SW SW SW 1-33n-92w, in the Muskrat field, Fremont County, west central Wyoming, is drilling plug with the 9⅝-inch casing set at 4750 feet just below the Frontier series. The company's Wertz 10-A, SE NW 7-26n-89w, in the Wertz field, Carbon County, south central Wyoming, is drilling at 3567 feet.

Nelson et al's Enos 1, W Lot 7, 27-3n-1w, Pilot Butte field, Fremont County, is drilling at 870 feet.

Tri-State Area

Drilling operations of the Mountain Fuel Supply Company in the tri-state area, report as follows: Allen 1, NE SW SE 32-12n-97w, in the Powder Wash structure, Moffat County, northwestern Colorado, is coring at 2250 feet.

On the Clay Basin structure, Daggett County, northeastern Utah, Moun-

MOUNTAIN STATES Completions

MONTANA

Company, Well and Location	Init. Prod. Bbls.	Depth
TOOLE COUNTY (Kevin-Sunburst Field)—		
Continental Oil Co., State 8, se ne 16-35n-2w	60	1578
Cook & Eddy, Lerum 1, ne se nw 25-36n-2w	*	1917
Superior Oil Co., Haugen 5, sw sw ne 11-35n-3w	22	1822

WYOMING

Company, Well and Location	Init. Prod. Bbls.	Depth
NIOBRARA COUNTY (Lance Creek Field)—		
Continental Oil Co., Schuricht 3-A, csw nw 5-35n-65w	1272	3824
Ohio Oil Co., Lamb 8, Account 2, csw ne 5-35n-65w	1262	4047

*Failures; †Junked; ¶Million cu. ft. gas.

tain Fuel Supply Company's State 1, NW SE 16-3n-24e, is drilling shale at 2563 feet. The same company's W. T. Nightengale, SW NE NW 32-16n-104w, Sweetwater County, southwest extension test to the South Baxter Basin field, southwestern Wyoming, is underreaming at 1942 feet to bottom at 1990 feet.

In the Hiawatha field, Moffat County, Colorado, Mountain Fuel Supply Company's Georgia Kuykendall 1, NE NE SE 22-12n-100w, is drilling at 2536 feet.

Northeastern Wyoming

One completion, a dry hole, finished in the Osage field, Weston County, northeastern Wyoming. Wheedon Oil Company's 21 G, SW SW 16-46-63, was dry to 340 feet.

Other operations were routine: Du-Buque-Wyoming Syndicate's 2, SE NW NW 31-46-63, ready to drill sand at 1438 feet with showing of oil. Hawkeye Supply Company's 5, CWL NW SW 18-46-63, is drilling at 1400 feet. Charles Stough's 3, C SW NW 4-46-63, is drilling at 136 feet. Al Jones 13, SW SW NE 21-46-63, is straightening hole.

MONTANA

Cut Bank, Mont.—The Cut Bank field, Glacier County, northern Montana, activity looks up this week as 2 wells, both rated for over 100 barrels, finished along with one small producer and two new locations.

Annand & Hutchings Federal Land Bank 2, SE SW 11-34n-6w, swabbed 210 barrels of oil in the first 24 hours at 2900 feet. Oil had risen 2100 feet in the hole. Oil was found between 2888 feet to 2895 feet. This well is located in the center of the Cut Bank field where as a rule small wells are completed.

A. B. Cobb, Alloted 115 1, C SE SE 31-33n-5w, in the Big Bend Pool, had 2000 feet of oil in the hole. Two pay sands were encountered at 2863-65 feet and 2900-2902 feet. Total depth is at 2902 feet. This well is expected to make 200 barrels on the swab.

Marshall (Stewart-Knutsen) Alloted 119, 1 C SE SW 1-32-6w, swabbed 30 barrels the first 8 hours at 3095 feet.

Two new locations for the week include: Cobb-Reagan's Jackson 2, 550 feet south of the north line and 2990 feet west of the east line of 5-32-5w; and Kately-Drumheller's Mattson 1, Lot 4, 10-34-6w, rigging up.

Kevin-Sunburst

Two new locations were staked in the Kevin-Sunburst field, Toole County, northern Montana, while no completions were reported. Cook & Eddy's Kaskin 2, SE SW SW 25-36n-2w, is a location and Frazer and Smith's Van Note 1, NW NW SW, is spudding.

Baker-Glendive

Montana Dakota Utilities Company's 1 Unit 8, NE NE NW 17-4n-62w, on Little Beaver Dome, Baker-Glendive structure, Fallon County, eastern Montana, is drilling at 7236 feet and will be carried to 8500 feet if necessary to test the Devonian series. Last week the well drilled plug between 6739-6798 feet and left cement in as bridge without cleaning out or testing oil show in which operators had been unable to shut out water.

Extends Mt. View

PRODUCER MILE SOUTHEAST HAS ERRATIC OIL OUTPUT

WEEKLY STAFF REPORT

Los Angeles. — Mohawk Petroleum Company's Earl Fruit 1, is hailed as having extended the proven limits of the Mountain View field to the southeast by more than one mile, although the production itself is disappointing. The well was completed August 1, flowing at the estimated rate of 300 barrels a day of 38 gravity oil cutting 8 percent mud. On August 2 the output had dropped to 185 barrels and on August 3, the well died. Swabbing was resumed and the well was recompleted August 4, flowing with no estimates available.

Depth is 6015 feet and the 7-inch water string is cemented at 5963 feet. During the test of water shut-off with the hole open to only 5968 feet the tester packer was set at 5954 feet and the valve remained open 30 minutes, during which interval 14 stands of drilling fluid and 6 stands of oil entered the drill pipe. Prior to cementing the 7-inch casing, a 45 minute formation test of the interval 5965-6015 feet recovered 42 stands of 36 gravity oil and no water.

Top of the Santa Margarita formation (upper Miocene) was cored at 5753 feet. It is reported that the hole is bottomed in schist and that the oil zone open to the well is Temblor (middle Miocene).

Despite the discouraging production from this well, Mohawk Petroleum Company has erected derrick for Earl Fruit 2, set foundations for Earl Fruit 3, and surveyed location for Earl Fruit 4.

Standard Oil Company of California has surveyed location for K.C. 10-1, 2310 feet south and 1650 feet east from the northwest corner of Section 20-30s-26e. Despite persistent rumors that Shell Oil Company controls all the property within a radius of 3 miles of Shell Oil Company's K.C.L. 1, this new location falls about three-quarter miles north of that well. K.C.L. 1, producing from 7888 feet, is the discovery well of Ten Section oil field, 12 miles west of Bakersfield and 7 miles east of Elk Hills oil field.

Republic Petroleum Company's Republic-Trust 1, located off the southwest edge of the Rosecrans field 12 miles south of Los Angeles, proved wet on a swabbing test and the water-witch is being run to locate the source of the water. The fluid recovered while swabbing at 3000 feet consisted of water containing 2000 grains of salt per gallon, with a trace of oil. The operator plans to plug the bottom 50 feet and then drill out and test in stages. Depth is 6141 feet with 7-inch water string cemented at 5883 feet.

Shell Oil Company has announced location for Branch 2, Section 34-24s-10e, ½-mile north and ¼-mile west of Branch 1, which was drilled to 8994 feet and suspended several weeks ago. These wells both start in Miocene sediments, and it is reported that Branch 1 was bottomed in granite. This locality is at the southern edge of Monterey County, 200 miles south of San Francisco.

Petroleum Securities Company's Home Ranch 3, in the Bardsdale area 20 miles east of Ventura, is being cored at 4129 feet in gray sand with a good odor. A formation test of the interval 3973-4030 feet recovered 42 stands of 38 gravity oil and no water. Prior to this test, the showings were believed to have consisted mainly of gas.

El Rancho Oil Company's Elkins 1, in the same area, is being cored at 5050 feet in sand and shale. A series of formation tests of intervals between 4667 feet and present bottom, have been very encouraging.

Eastern Oil Company's Eastern 1, semi-wildcat well east of the Playa del Rey field, tested wet when swabbed for production on July 29, and a water witch is being run to locate the source

CALIFORNIA

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
DOMINGUEZ—		
Union, Hellman 43	250	5419
RICHFIELD—		
Union, Chapman 22	275	4196
REDONDO—		
Texas Co., Redondo Imp. 6	130	3544
SANTA FE SPRINGS—		
Union, Farwell 21	250	4500
KETTLEMAN HILLS—		
Kettleman No. Dome. No. 74-30J	650	8652
FRUITVALE—		
General Pet. Hensley 3	85	4000
MIDWAY-SUNSET—		
Gibson Oil Co., O'Brien 1	700	2845
Otis Hoyt, No. 2	150	1649
KERN FRONT—		
Republic Pet. Co., Fleishaker 4	170	1917
MOUNTAIN VIEW—		
Standard, Maybry 1	120	5020
MIDWAY-PREMIER—		
Ohio Oil Co., Premier 12	250	2786
ROUND MOUNTAIN—		
Honolulu Oil Corp. No. 18-2	125	1950
Petroleum Sec. Co., Coffee 5	100	1550
Shell, Olcese One 9	320	1930
SANTA MARIA—		
Union, Cal-Coast 16	255	4088
VENTURA AVENUE—		
Shell, Taylor 88	1420	6060

*Failures; †Junked; ¶Million cu. ft. gas.

of water. Following swabbing, the well flowed gas, water, mud, and a little oil to the sump for about 7½ hours and then died. The water tested 1100 grains of salt per gallon. Depth is 7563 feet, bottomed in the oil sand-conglomerate zone, and 4¾-inch liner, including 65 feet perforated, was landed on bottom and cemented through perforations at the base of the nodular shale at 7398 feet.

Shell Oil Company's Anaheim Sugar 3-1, wildcat well 3 miles east of Huntington Beach, recovered only muddy salt water during a formation test of the interval 3317-3368 feet. The well is being cored in sand and shale at 3420 feet. Location is in the SW Section 7-6s-10w, and is presumed generally that production is looked for along a southeasterly projection of the fault which crosses the Main Street area of the Huntington Beach field.

Gibson Oil Company's O'Brien 1, in the Midway-Sunset field, was recompleted July 28, flowing 700 barrels a day of 24 gravity oil. Water string was cemented at 2775 feet, 6⅝-inch liner was landed at 2815 feet, and the well was originally completed on March 4, 1936, flowing 750 barrels a day of 23.7 gravity oil cutting 0.2 percent. The well was recently deepened through the 6⅝-inch liner from 2815-2905 feet and plugged back to 2845 feet, and a 5-inch perforated liner was landed at 2845 feet. This is the discovery well of the new zones northwest of Maricopa Flats, which precipitated the recent active drilling campaign.

In the El Segundo district, Richfield Oil Company has taken over the interests of Universal Consolidated Oil Company in an 80-acre parcel formerly held jointly. Production here is obtained from the basal conglomerate zone (lower Modelo-upper Miocene) which overlies the eroded schist (Franciscan-Jurassic). This zone is correlative with the lower zone of the Playa del Rey field. Under the terms of the lease assumed by Richfield Oil Company, operations must be commenced on or before August 15.

General Petroleum Corporation Terminal 1, in the Los Angeles Harbor district 5 miles west of Long Beach, is being cored at 4723 feet in shale. Between 3300 feet and 4200 feet approximately 800 feet of zone was encountered which carried roughly 60 percent oil sand. Between 4200 feet and 4400 feet the formations consisted of shale with streaks of sand, and from 4400 feet to present bottom they have consisted of all shale. Operator plans to core to the top of the schist. Production tests made of two shallower zones as they were encountered indicated commercial production from each.

DeAugustine-Abrams-Daly Oil Company's Barnett 1, deep test at the southeast end of the East Coyote field, is standing recemented following an unsatisfactory water shut-off test. Depth is 2811 feet and 8⅝-inch water string was cemented at 2738 feet and cemented through perforations by the multiple stage method at 813 feet. The upper stage was tested first, recemented, and retested before testing the shoe at 2738 feet.

A New *Slant* on PUMPING WELLS

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Coffeyville, Kansas

MICHIGAN

WEEKLY STAFF REPORT

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
GLADWIN COUNTY—		
M. F. Whitehill, Walker 2, se nw sw 2-17n-2w	100	3897
GRATIOT COUNTY—		
New Haven Oil Co., Shaver 2, c nw se 4-10n-4w	¶5½	1001
Massigan Gas Corp., Shaver 2, c nw nw 4-10n-4w	¶5½	998
KENT COUNTY—		
J. H. Barton, Smith 1, se ne ne 29-10n-10w	*	3201
MIDLAND COUNTY—		
Brehm-Hollman Corp., Hyde 1, sw nw sw 21-15n-2w	*	3703
W. J. Blunt, Harrison 2, nw se sw 18-14n-2w	25	3585
Pure Oil Co., Novak 4, ne nw ne 18-14n-2w	25	3580
Eldridge A2, c ne sw 2-13n-2w	450	3431
Crandell 2, nw nw nw 16-13n-1w	103	2430
Joseph Trever's Forbes 1, sw sw sw 22-13n-1w	*	3445
MONROE COUNTY—		
Trenton Oil Co., Stone 1, se se se 24-7s-6e	*	2100
MONTCALM COUNTY—		
Hyatt & Norton, State Bank 1, c se ne 2-12n-7w	¶2½	1290
Superior Oil Co., Peterson 1, c se nw 12-12n-7w	¶7	1287
Fortney Oil Co., Fisher 5, se ne ne 2-10n-5w	120	3190
Rockleman 3, sw sw se 11-10n-5w	40	3189
Her Ka Mon Oil Co., De Young 1, ne ne nw 15-10n-5w	5	3218
Hirzel-Leland, Henemyer 1, c se sw 26-11n-5w	*	1100
Gordon Oil Co., Laughlin 2, c nw se 4-12n-7w	¶73	1300

*Failures; †Junked; ¶Million cu. ft. gas.

EASTERN FIELDS

WEEKLY STAFF REPORT

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
OHIO		
WOOD COUNTY—		
Mary V. Concen, Mercer 1	¶	....
SENECA COUNTY—		
Harpster & Co., Sendelberg 1	¶	....
PUTNAM COUNTY—		
C. K. Rodgers, Shipe & Perry 2	6	1225
WAYNE COUNTY—		
Ohio F. G. Co., Johnson 1	*	3236
Priest 1	¶	3042
Nirode 1	¶	....
ASHLAND COUNTY—		
R. C. Jones, Fox 3	*	565
Ohio F. G. Co., Stanislaweki 1	¶	722
LORAIN COUNTY—		
Schneider & McBride, McBride 1	*	2526
William Dempsey, Cotton 1	*	2524
Ohio F. G. Co., Zurgana-Cavar 1	*	2572
Schneider & Wyles, Hecock 1	*	....
HOLMES COUNTY—		
Mehowa O.&G. Co., Clara Schaffer 1	*	3164
Bell Bros., Finley 4	¶	888
SUMMITT COUNTY—		
Kime & Co., Cannon 1	*	....
Brooks Johnson, Gillie 2	*	656
COSHOCTON COUNTY—		
Murphy & Son, Rine 4	12	3188
Ohio Gas & Light Co., Gottlieb 4	¶	979
STARK COUNTY—		
Ohio F. G. Co., Forney 1	*	4170
Bergen 1	¶	4489
Ohio Gas Co., S. Sogorka 1	¶	4275
PERRY COUNTY—		
Kissling Drl. Co., Stoltz 1	¶	2845
Ohio F. G. Co., Winsgardner 1	¶	2815
Rhodes 1	¶	3224
Hopewell G. & F. Co., From 1	¶	2876
HOCKING COUNTY—		
City Nat. Gas Works, Ellen Oliver 1	*	2580
Preston Oil Co., S. C. C. C. 135	*	3599
WEST VIRGINIA		
PLEASANTS COUNTY—		
Maxwell O. & G. Co., Williamson 1	5	....
WASHINGTON COUNTY—		
South Penn Oil Co., Yawkey-Freeman 47	¶	....
Ohio F. G. Co., Keith 1	¶	....
BOONE COUNTY—		
Pure Oil Co., Federal Coal Co. 82	¶	....
GILMER COUNTY—		
A. E. Ellis & Co., Ware & Webster 4	25	....
Jackson & Garrison, Bennett 1	*	....
RITCHIE COUNTY—		
Clem S. Morris, Ayers 3	¶	....
Griffin Prod. Co., Stewart 80	¶	....
McCall Drl. Co., Toothman 1	¶	....

*Failures; †Junked; ¶Million cu. ft. gas.

THE OIL WEEKLY REPORT ON IMPORTANT

Wildcat Tests

ALABAMA

HOUSTON COUNTY — Rice O&G Co.'s Oakley Est. 2, se nw sw 9-3n-29e, elev 191 ft, sd for heavier rig 4002 ft, possible base Tuscalloosa.

MOBILE COUNTY—J. C. Prine's King 1, 4-1n-4w, pb to perf and test 2500-2600 ft, old td 3186 ft. Grand Bayou O&G Co.'s J. A. Stafford 1, sw sw 24-7s-3w, lcn.

ARKANSAS

BRADLEY COUNTY—Phillips Pet., Murphy Land Co. 1, nw nw 12-17-11, elev 91 ft, top Permian lime 4900 ft, tested sw with drops of asphalt 4900-4940 ft, coring 4950 ft lime.

CLEVELAND COUNTY—Diffie et al's L. C. Ross 1, sw ne 1-11-11, wocs 100 ft. R. L. Saxon's L. C. Tipton 1, sw ne 13-11-12, dk. J. R. Lockhart's Robertson 1, se se 36-10-11, dk.

DALLAS COUNTY — McCall and Kelly's Owens 1, nw sw 26-10-16, owdd, cmt 4½ in casing 1445 ft, testing, total depth 1456 ft.

HEMPSTEAD COUNTY—H. D. Easton et al's Conway-Tiller 2, sw sw 34-12s-27w, rur. Buffalo Oil Co.'s Lafferty 2, 17-14-24, arr deepen 2415 ft.

LITTLE RIVER COUNTY—M. E. Sanderson's Penning 1, ne sw, woc 10 in casing, 168 ft.

LONOKE COUNTY—J. F. Russel's Gunter 1, se se 17-5-10, dk.

MILLER COUNTY—Deep Rock Oil Corp.'s Williams 1, nw sw nw 6-16-25, elev 232 ft, top Coquina lime 4304 ft, top oolitic lime 4370 ft, dry and abn, td 4434 ft. Joiner et al's Montana Realty Co. 1, nw nw 3-17-28, elev 225 ft, dr 3205 ft. McClanahan et al's Miller Lbr. Co. 1, sw sw 2-18-28, 15½ in casing 250 ft, top Nacatosh 1632 ft, dr 2080 ft chalk. Montana Lbr. Co. 1, sw sw 2-20-27, rig up, sd.

NEVADA COUNTY — Benedum & Trees' Groves 1, sw nw 10-14-20, lcn.

OUACHITA COUNTY—O. F. Whittaker's Howard 1, 29-12-16, sd 2542 ft. J. M. Ferris' G. Dean 1, ne se nw 16-15-17, owdd, td 2997 ft. Edwin M. Jones' J. D. Reynolds A-1, sw sw 27-15-15, pits dug, sd; J. D. Reynolds' A-2, sw sw 27-15-15, lcn; E. Murphy 1, ne ne 28-15-15, lcn; E. Murphy 2, nw ne 28-15-15, lcn. Lion O. R. Co.'s Reynolds-Berg 1, se se ne 28-15-15, elev 105 ft, pb to 4806 ft, old td 5247 ft, completed 20 bbls dist per hr and 35 mil ft gas daily at 4896 ft. Phillips Pet. Co.'s Arnold 1, ne sw 27-15-15, elev 207 ft, flowed 80 bbls fluid, some oil and made 5,253,000 ft gas in 24 hrs through tubing choke, tubing pressure 90 pounds, casing pressure 850 pounds, td 4914 ft, dd, 7-in csg cement 5335 ft, to drilling through Permian lime; Cheatham 1, sw ne 27-15-15, missed test 4910 ft; Ferris 1, nw se 27-15-15, ru and sd; Rose 1, ne se 28-15-15, sd 4819 ft. John Pugh's Hildebrandt 1, se se 28-15-15, tested sw, abn, td 4935 ft lime.

PULASKI COUNTY — G. L. Kieselman's Fee 1, 2-1-13, 10-in cas 100 ft, td 200 ft.

UNION COUNTY—J. C. Buckbee, Tr.'s Ezzell 2, sw ne nw 13-17-15, elev 255 ft, dr 5910 ft sandy shale. Mrs. Mamie McCurry et al's Slaughter 1, se se 9-17-16, no report. Phillips Pet. Co.'s E. Morgan 1, 18-18-17, dr 1675 ft sticky shale.

CALIFORNIA

FRESNO COUNTY

CANTUA CREEK—Mohawk Pet. Co.'s Langer 1, 30-16-18, lcn. Western Gulf's S.P.L. Co. 3, 3-17-15, dr sand and shale 8002 ft.

CURRY MOUNTAIN—Standard's Camino 1, 1-21-15, dr hard blue shale, limey streaks 2294 ft.

KERN COUNTY

MOUNTAIN VIEW—Associated's DiGiorgio 1, 3-31-29, lcn. Mohawk Pet. Co.'s Earl Fruit 1, 10-31-29, td 6015 ft, ran formation tester, valve open 30 minutes, filled 4 stands with dr mud and 6 stands of oil, now dr out plug. Shell's Green 1, 15-31-29, grade.

LOST HILLS—Associated's Fee 1, 1-26-20, laying water lines; Williamson 2, 2-26-20, td 1143 ft, testing on pump; Williamson 3, 2-26-20, lcn. Standard's United 1, 2-26-20, td 6887 ft, fsh.

RIO BRAVO—Associated's K.C.L. 1, 30-29-25, lcn.

GRAPEVINE—Associated's Tejon 1, 17-11-19, dr sand 1350 ft. Hall-Baker Co.'s No. 1, 12-10-19, td 2377 ft, plug 2259 ft, co. Ohio's T. I. T. 1, 36-11-19, dr basalt 5229 ft. Reserve Oil & Gas Co.'s Ritchie 33-2, 33-11-19, dr shale 4085 ft; Tejon 2-6, 2-10-19, rigged up and standing.

SO. MARICOPA—E. A. Bender's Robinson 1, 14-10-23, sd 840 ft.

JASMINE—Cochran Oil Co.'s Bishop 1, 31-25-27, dr brown shale 3369 ft. Doyle Pet. Co.'s Quinn 1, 15-25-27, dr sandy shale 2104 ft.

DEVIL'S DEN—Den Pet. Co.'s Bates 1, 20-25-19, td 1287 ft, redr at 450 ft.

ELK HILLS—Elk Hills Pet. Corp.'s No. 1, 14-31-24, dr shale 4840 ft.

ARVIN—General Pet. Corp.'s Arvin 1, 26-31-29, dr shale and sand 2811 ft.

POSO CREEK—McAdams Oil Co.'s No. 1, 32-27-28, td 1883 ft, tested wet, placing plug.

STRAND—Ohio Oil Co.'s K. C. L. D-1, 1-30-25, dr gray sand 8856 ft.

FRUITVALE—Oil Inc., D-1, 26-29-27, dr shale 2674 ft.

DOMINION — Modoc Pet. Co.'s Vedder-Bowles 2, 21-26-28, td 1537 ft, bailing 60 bbls day.

NO. BELRIDGE — Rio Grande Oil Co.'s Layman 1, 18-28-20, dr shale and sand 2210 ft.

COMANCHE POINT — Tejon Ridge Oil Co.'s Tejon 1, 23-32-29, dr blue shale 2510 ft.

SO. BELRIDGE—Temblor Range Oil Co.'s No. 1, 24-28-20, td 933 ft, co.

SAN EMIDIO—Texas Co.'s K.C.L. C-11-49, 11-11-22, td 8085 ft, to cement 9⅝ in near bottom.

ALAMEDA COUNTY—Seaboard Oil Corp.'s Johnson 1, 13-3-3, dr sand and shale 1400 ft.

HUMBOLDT COUNTY—Texas Co.'s No. 2, 22-3-1, td 4428 ft, recovered 4 in dr pipe to 3207 ft, cemented through perfs at 3216 ft.

KINGS COUNTY—Associated's Avenal 1, 35-23-17, td 195 ft, redr at 1675 ft. Kerndall & Associates' Spreckles 1, 16-24-18, td 4201 ft, plug 1985 ft, to test on new pump. Milheim Oil Corp.s No. 1, 7-23-23, td 1838 ft, to deepen.

MADERA COUNTY—Pure Oil Co.'s Chowchilla 5, 12-10-13, ready to spud.

MERCED COUNTY—San Joaquin Oil Co.'s San Joaquin 1, 1-12-11, dr shale 2685 ft.

SAN BENITO COUNTY — Associated's Murphy Ranch 1, 5-12-4, dr shale 1562 ft.

SAN JOAQUIN COUNTY—Amerada Pet. Corp.'s F.D.L. 5, 15-2-5, td 6160 ft, plug 4000 ft, tested good for 32,000,000 cu. ft. gas, shut in. Standard's Wayl-Zuckerman 1, 25-24, td 5273 ft, to set casing.

SOLANA COUNTY—Amerada Pet. Co.'s Hoppe 1, 22-4-2, rur. Standard's Anderson 6-1, 35-4-2, dr gray sand 4450 ft; Niel Anderson 1, 27-4-2, rig.

TEHAMA COUNTY — Northern Counties Pet. Co.'s Ewers-Mooney 1, 25-24-3, td 8060 ft, co to deepen.

TULARE COUNTY—J. W. Alford's Williams 1, 28-16-23, rig. W. H. Fortine's Mosesian 1, 22-27-26, td 3120 ft, plug 2719 ft, must recement 6⅝ in at 2626 ft. Trico Oil & Gas Co.'s Calif. Western 1, 7-23-23, rig; Callison 1, 27-21-25, grade.

MONTEREY COUNTY—Shell's Branch 1, 34-24-10, sd 8994 ft; Branch 2, 34-24-10, lcn.

SAN LUIS OBISPO COUNTY

ARROYO GRANDE—Avila Oil Co.'s Gibson 1, 10-31-13, dr hard shale 2840 ft. Birch-Royer Oil Co.'s Patchell 1, 33-31-13, dr brown shale 1871 ft. Blue Ridge Oil Co.'s Carpenter 1, 5-32-13, grade. Crail Bros.' Vedder 1, 8-32-13, dr hard shale 2694 ft. A. T. Jergins Trust's Roderiguez 1, 5-32-13, dr brown shale 3175 ft; Roderiguez 2, foundation. Pismo Pet. Co.'s Scott 2, 5-32-13, rig.

CARRIZO PLAINS—Barnsdall's Wreden 1, 24-28-17, dr sand and shale 4563 ft.

PANORAMA HILLS — United Oil Co.'s Panorama 1, 2-32-21, td 1490 ft, rep. machinery.

SANTA BARBARA COUNTY

COAL OIL POINT—Bankline Oil Co.'s No. 2, permit 191, dr 4015 ft, and directing hole.

LOMPOC—O. C. Field's Santa Rita 1, 11-7-33, td 1980 ft, r. Lompoc Pet. Co.'s Beauterbaugh 2, 18-7-34, sd 3940 ft. Top Row Oil Co.'s Spanne 1, td 325 ft, rep equip. York Oil Co.'s York 2-A, 33-8-34, td 2015 ft, wocs 7 in on bottom.

BETTERAVIA—E. H. Moore's Union Sugar A-1, 25-10-35, dr shale 5789 ft.

VENTURA COUNTY

BARDSDALE—Bestco Pet. Co.'s Frey 1, 2-3-19, sd 4512 ft, plug 4000 ft. El Rancho Oil Co.'s Elkins 1, 9-3-19, dr sand 5049 ft. Layning & Jacobs' No. 1, td 1275 ft. sidetracking. Petroleum Sec. Co.'s Elkins 1, 7-3-19, sd 5627 ft; Home Ranch 3, 3-3-19, dr gray sand 4128 ft. Union's Dryden 10, 12-3-20, td 6561 ft, to test on pump.

SO. MOUNTAIN—Geo. L. Duty's No. 1, 13-3-21, lcn. Honolulu Oil Corp.'s Hobson 1, 23-3-21, td 2495 ft, fsh.

OXNARD—General Pet. Corp.'s McGrath 2, 26-2-35, dr hard shale 8844 ft.

SHIELLS CANYON—Texas Co.'s Shiells 130, 4-3-19, dr shale 4114 ft; Shiells 131, td 3355 ft, flowing through tester 81 bbls of 35.2 gravity oil, and 250,000 cu. ft of gas.

VENTURA—Ventura Explor. Co.'s Sexton 1, 30-3-22, dr sand streaks shale 9020 ft.

SOUTHERN CALIFORNIA

NEWHALL—Barnsdall's Rancho S. F. 1, 26-4-17, rig. Holbrook Pet. Corp.'s No. 1, 26-4-16.

ARTESIA—M. T. Bernstein's Millard 1, 25-3-12, dr shale 4940 ft.

TORRANCE—Codri Oil Co.'s No. 1, 28-4-13, td 3902 ft, plug 3710 ft, bailing.

GARDENA—Crude Oil Drlg. Co.'s No. 1, 31-3-13, rigged up and suspended.

WILMINGTON—General Pet. Corp.'s Terminal 1, dr sand and shale 4222 ft; Terminal 1, 20-4-13, spud 7/30, dr. Royalty Service Corp.'s Banning 10-1, lcn; Banning 11-1, td 3525 ft, testing shutoff.

PUENTE—McVicar-Rood's Sentous 1, 6-2-9, td 3120 ft, plug 1180 ft, to abn.

PALOS VERDES—Pamaco Royalty Co.'s Burkhard 1, 2-5-14, rur.

ROSECRANS—Republic Pet. Co.'s Trust 1, 18-3-13, td 6141 ft, tested wet, to test in stages.

EL NIDO—Shell's Lloyd-Dabney 1, 33-3-14, dr shale streaks sand 5496 ft.

LAWNDALE—Signal Finance Corp.'s Woods 1, 10-3-14, dr shale 6011 ft.

EAST SANTA FE—Vanda Pet. Corp.'s Lotus Land 1, 4-3-11, dr hard brown shale stks sand 4424 ft.

ORANGE COUNTY—Hillman & Long's No. 1, 14-5-11, dr sand and shale 8262 ft. Shell's Anaheim Sugar 3-1, 7-6-10, td 3464 ft, formation tester showed water 3317-68 ft, dr.

ABBREVIATIONS

The following abbreviations, signs, etc., are used in completions and wildcat reports in THE OIL WEEKLY.

*—*dry hole abandoned.*	owdd—*old well drilling deeper.*
‡—*salt water (completions).*	owpb—*old well plugging back.*
†—*junked and abandoned.*	pb—*plugged back or plugging back.*
¶—*million feet of gas.*	r—*reaming.*
abd—*abandoned.*	rog—*rig on the ground.*
bbls—*barrels.*	rur—*rigging up rotary tools.*
br—*building rig.*	rust—*rigging up standard tools.*
b.s.—*basic sediment.*	sd—*shut down.*
csg—*casing.*	sdtr—*sidetracking.*
co—*cleaning out.*	sg—*show gas.*
dd—*drilling deeper.*	si—*shut in.*
dk—*derrick.*	so—*show oil.*
dr—*drilling.*	so & g—*show oil and gas.*
fsg.—*fishing.*	spd—*spudding.*
ft—*feet.*	sr—*straight reaming.*
hfw—*hole full of water.*	sw—*salt water.*
in—*inches.*	td—*total depth.*
lcn—*location.*	ur—*underreaming.*
m—*milling.*	wih—*water in the hole.*
mim—*moving in materials.*	wo—*workover.*
mit—*moving in tools.*	wocs—*waiting on cement to set.*
mot—*milling on tools.*	wosr—*waiting on standard rig.*
n, s, e, w—*north, south, east, west.*	
oih—*oil in hole.*	

COLORADO

ADAMS COUNTY—Glenridge Oil Co., Hills Dome Oil Lease, Hills 1, csl se se 27-3s-64w, sd 4262 ft for pipe. Oklahoma Oil Co., Baxter 1-C, sw 2-3s-6e, dr 2177 ft, estimated 2,000,000 cu ft gas at 2065-2095 ft.

ARCHULETA COUNTY—Oil City Petroleum Co. & Archuleta Oil & Gas Co., Reeder 1, swc, lot 5, 24-33n-2e, top sand 1183 ft, 250 ft oil in hole, will pump to test. Carl D. Lindstrom Crowley 1, se se se 3-32s-2e, ru. Maryatt Drilling Co., Hollywood 1, se se se 15-34n-1w, spd and sd. Wm. E. Hughes Estate Fee 8, nw se ne 24-33n-2e, sd 800 ft.

BACA COUNTY—Paul R. Robb Petroleum Corporation, Lovettee 1, nw nw nw 24-32s-48w, sd 2790 ft.

BOULDER COUNTY — Boulder Prod. & Drilling Co., Maxwell 2, sw sw ne 24-1n-71w, dr 220 ft.

LARIMER COUNTY—Continental Oil Co., Buckeye U. P. 8, cne sw 31-19n-68w, trying to regain lost circulation at 3713 ft.

MOFFAT COUNTY—Continental Oil Co., Henderson 1, sw sw sw 16-3n-91w, mim.

MONTEZUMA COUNTY—Coon & Teague (McElmo Oil Co.), West 1, ne nw nw 31-36n-17, testing.

PARK COUNTY—South Park Oil Co., State 1, se se sw 16-11s-75w, dr 4612 ft, carrying 4¾ in csg at 4576 ft. South Park Oil Co., LeBert 1, ne ne nw 21-11s-75w, dr 700 ft in sandy shale. South Park Oil Co., Lemarr 1, ne ne se 34-11s-75w, ru and ready to spud.

YUMA COUNTY—Indian Territory Oil Co. Strangways, cnw sw 21-2s-43w, dr 5050 ft.

WELD COUNTY — Continental Oil Co., State Bank of Trenton 1, csw ne 21-8n-59w, dr in black shale at 6829 ft. Continental Oil Co., Briggs 2, ne sw 13-6n-61w, cellar and pits completed.

FLORIDA

LAKE COUNTY—Oil Dev. Co. of Fla.'s Gulf Expl. Co. 2, se se 17-24s-25e, elev 120 ft, claim so and sg, dr 5022 ft limestone.

NASSAU COUNTY—St. Mary's River Oil Corp.'s Bank of Hilliard 1, 19-4n-24e, re-set surf cas 345 ft.

KANSAS

BARBER COUNTY—Sinclair Prairie's Gentry 1, ne ne ne 1-33s-15w, dr 1300 ft.

BARTON COUNTY—Schermerhorn Oil Co.'s Hunter 1, ne ne ne 29-18s-15w, td 3578 ft, 18,000,000 cu ft gas, comp. Rosespring Drlg. et al's Rick 1, sw sw sw 1-19s-11w, acidizing. Brouk et al's Keil 1, se se ne 11-16s-15w, dr 3280 ft. Rose & Lants' Redetzke 1, ne nw nw 10-16s-11w, dr 1760 ft. Yernell & Carlson's Rath 1, ne ne ne 35-18s-12w, sd 200 ft. John Burton et al's Wendel 1, ne ne ne 13-19s-11w, sd 555 ft, woc.

BUTLER COUNTY—Dalton et al's Miley 1, csw ne 17-27s-5e, sd 350 ft. W. P. Hildebrand et al's Farab 1, sw sw se 5-29s-6e, cellar.

CLARK COUNTY — Olson & Watchorn's Morrison 1, cse sw 17-32s-21w, dr 4790 ft.

COWLEY COUNTY—Morton et al's Rogers 1, se se ne 1-31s-4e, dr 2610 ft.

EDWARDS COUNTY — Stanolind-Elwell's Donovan 1, cse se 14-25s-18w, fsg 4580 ft.

ELLIS COUNTY—Rosespring et al's Union Pacific 1, ne ne ne 9-13s-20w, fsg, 3783 ft. Empire's Herl 1, se se se 22-15s-19w, ur 8-in csg 3350 ft. Jones & Shelbourn's Gunther 1, se se sw 9-11s-19w, sd 3065 ft. Vickers Pet. Co.'s Kraus 1, sw sw nw 22-14s-19w, 2800 ft oih, td 3740 ft. Bradley Oil et al's Penny Wann 1, se se se 13-15s-20w, fsg 3425 ft. Empire's Samuelson 1, ne ne sw 31-11s-16w, dr 2230 ft. Kansas Dev. Co.'s Haller 1, se se ne 10-11s-18w, hfo 3046 ft. Bridgeport Mach's Ubert 1, ne ne nw 12-13s-18w, sd 2580 ft. Philham Oil Co.'s Gerstner 1, sw sw se 24-14s-17w, dr 2790 ft. Trigg et al's Armbrister 1, se se sw 6-11s-19w, dr 2975 ft. Lario O&G Co.'s Cress 1, ne ne ne 13-11s-17w, br. Champlin et al's Hadley 1, se sw ne 30-11s-17w, dr 400 ft. Lario O&G Co.'s Marshall 1, nw se ne 36-11s-18w, dr 1062 ft. Frank Hamilton et al's Sack 1, nw nw se 26-13s-19w, spd. Twin Drlg et al's Schmidt 1, sw sw ne 22-15s-17w, dr 2015 ft. Murphy Oil Co.'s Wiesner 1, se se sw 12-14s-19w, lcn. Ted Kerr et al's Koblitz 1, se sw nw 23-12s-18w, spd & sd. Wolf Creek et al's Polifka 1, sw sw ne 24-13s-18w, set 15-in csg 730 ft.

ELLSWORTH COUNTY — York State Oil Co.'s Koestle 1, nw nw se 12-17s-9w, abd 3235 ft. Carter Oil et al's Kruse 1, se sw ne 31-17s-8w, dr 2683 ft.

GREENWOOD COUNTY—McGinnis' Lampe 1, nw ne sw 26-4s-8e, abd 2487 ft. Guy Scott et al's Pedroja 1, se ne se 6-26s-10e, sd 1080 ft.

HARPER COUNTY—Marathon's Zellers 1, csw nw 17-35s-8w, abd 6004 ft.

HARVEY COUNTY—Harburney Oil Co.'s Scrag 1, nw nw se 24-22s-3w, sd 3110 ft. Shawver's Judd 1, sw se ne 3-24s-2e, dr 3125 ft.

HASKELL COUNTY—Helmerich & Payne et al's Jones 1, cse 34-26s-34w, dr 2530 ft. Kuhn Bros. et al's Nilson 1, sw sw se 21-28s-32w, dr 2710 ft.

KINGMAN COUNTY — McBride's Woolridge 1-A, sw ne se 16-27s-7w, dr 1550 ft.

LINCOLN COUNTY—Graham et al's Smiley 1, ne nw nw 26-10s-9w, rr.

LYON COUNTY—Becker Bros.' Rossillion 1, se sw ne 19-21s-11e, dr 1800 ft.

MARION COUNTY—Empire's Schmidt 1, nw nw se 31-20s-2e, dr 375 ft.

McPHERSON COUNTY — Hawkin et al's Ritikofer 1, ne ne se 2-20s-1w, dr 535 ft.

NESS COUNTY—Newton Dev. Co.'s Tenny 1, nw nw se 19-18s-25w, td 3954 ft, woc. Continental's Thompson 1, ce¼ e½ sw 13-18s-26w, pb 4492 ft, 2000 gals acid, no test. Sayre Oil Co.'s Ryersee 1, cne se 34-18s-21w, lcn.

PAWNEE COUNTY—Kessler & Theirs et al's Gustafson 1, sw sw sw 27-20s-16w, dr 825 ft. Simpson et al's Gates 1, sw sw sw 13-20s-16w, ru.

RENO COUNTY—Rosespring et al's Swansen 1, ne ne nw 1-23s-5w, 100 ft oih, 2000 ft wih. Dickey Oil Co.'s Shepherd 1-A, ne ne nw 22-26s-9w, pb 4035 ft to acidize. Miller et al's Detter 1, ne se nw 28-22s-7w, sd 2000 ft. Pryor & Lockhart et al's Kerr 1, cnw 23-23s-8w, dr 1240 ft. Foraker et al's Hiett 1, se sw ne 34-24s-4w, sd 3190 ft. Continental and Wentz's Snock 1, ne nw sw 10-22s-8w, dr 2964 ft. Graham et al's Miller 1, ne ne se 36-25s-10w, dr 3820 ft.

RICE COUNTY—Gilmac Oil Co.'s Sargent 1, se se se 31-18s-6w, td 3488 ft. Beardmore et al's Fuller 1, sw sw se 23-18s-7w, woc 3538 ft. Saco Oil et al's Haxton Est 1, nw nw ne 30-19s-8w dr 1885 ft. Simpson & Nobles' Pulliam 1, cs½ n½ ne 35-19s-8w, dr 3774 ft. Simpson, Noble & Stanolind's Bowman 1, sw sw nw 22-19s-10w, pot 58 bbls oil, 10 bbls water, comp. Sage et al's Patton 1, sw sw sw 5-21s-7w, ur 10-in cgs 1985 ft. Shell's Gordon 1, cw½ w½ ne 21-21s-10w, sd 2863 ft. Shell's Maughlin 1, 11-20s-8w, prep to dd. W. S. Field et al's Crawford 1, se se sw 21-19s-6w, rur.

ROOKS COUNTY — Skaer Oil Corp and Reese's Dryden 1, ne ne ne 28-10s-17w, abd 3705 ft. Lester & Dean's Burtt 1, se se ne 29-10s-2w, ur 8-in 3088 ft. Helmerich & Payne's Bedard 1, cne 29-9s-19w, wih 3688 ft. L.C.D. Drlg Co.'s Westhusin 1, cne se 11-19s-17w, dr 2033 ft. Hartman & Blair et al's Hall 1, nw nw nw 25-10s-17w, ur 8-in 2915 ft. J. A. Shoemake's Stebbins 1, ne ne sw 26-7s-17w, ur 8-in 2985 ft.

RUSH COUNTY—Boyle & Grossman's Wilson 1, ne ne ne 33-17s-19w, dr 3992 ft. Skeeles et al's Grumbein 1, sw sw ne 7-16s-20w, cellar.

RUSSELL COUNTY — Hartman & Blair's Johnson 1, nw nw nw 11-13s-14w, dr 2130 ft. Lario O&G Co. et al's Steinert 1, nw nw sw 21-15s-15w, 16 bbls oil, 1 bbl water, td 3097 ft. Lee & Reser's Penix 1, sw sw se 13-14s-13w, dr 3210 ft. Coralena Oil Co.'s L. A. Sellens 1, nw nw nw 17-15s-13w, ru. Armer et al's Maier 1, ne ne nw 20-15s-14w, dr 2465 ft.

SALINE COUNTY — Ryan Consolidated & Archer's Norton 1, ne ne ne 30-14s-2w, dr 2073 ft. James Brook et al's Othelander 1, ne nw se 10-16s-3w, dr 190 ft.

SEDGWICK COUNTY — Wakefield et al's Howard 1, se se ne 25-25s-2e, dr 1310 ft. Lauck's McLean 1, csw se 1-27s-1w, dr 2135 ft.

SHERIDAN COUNTY—O. A. Roberts et al's Corrick 1, cnw 34-9s-26w, lcn.

STAFFORD COUNTY—Lebow et al's Wolf 1, se sw nw 3-21s-12w, fsg 2335 ft. I.T.I.O. Co.'s Mellies 1, cn½ n½ ne 6-22s-11w, dr 475 ft.

SUMNER COUNTY—Matthews & Derrington's Berry 1, nw nw se 14-25s-1e, fsg 3755 ft. Wilson et al's Clark 1, csl nw 15-35s-1w, dr 4446 ft. Texas Co.'s Reed 1, ne se se 11-31s-1w, dr 3625 ft. Pryor & Lockhart's McCowen 1, ne ne sw 18-32s-1w, rig.

TREGO COUNTY — Central Commercial's Wagg 1, nw nw se 17-13s-21w, pb 3680 ft. Hall et al's Deines 1, se se se 12-13s-24w, dr 3450 ft. G. M. Pigott Inc et al's Burkett 1, csw 15-11s-22w, spd. McNeely et al's John Lemke 1, nw nw sw 7-11s-22w, dr 2286 ft.

WOODSON COUNTY—Lewis et al's Riggs 1, sw sw sw 10-26s-14e, sd 1230 ft. Ladd et al's Millner 1, nw sw nw 34-25s-14e, dr 245 ft.

SOUTH LOUISIANA

CALCASIEU PARISH — Union Sulphur's Wurmnest 1, South Lake Charles prospect, 9-11s-8w, woc 2035 ft. H. E. Dalton's Setting 1, Tribly prospect, 17-9s-1w, sd 30 ft.

CAMERON PARISH—Magnolia's Hebert 1, Big Lake area, 13-12s-9w, fsh 9400 ft.

EAST BATON ROUGE PARISH—Cavalier Oil Co.'s Vignes 1, 40-8s-2e, dr shale 1485 ft.

IBERIA PARISH — Texas Co.'s Fausse Point 2, Fausse Point prospect, 35-11s-8e, dr shale 4310 ft; same operator's Vermilion Bay B-1, Vermilion Bay prospect, 16s-5e, dr shale 4800 ft. Jefferson Lake Oil Co.'s Lake Peigneur 274, Jefferson Island dome, 12s-5e, abn 8610 ft.

JEFFERSON PARISH — Triangle Oil & Land Co.'s Carrol 1, 125-12s-11e, dk.

JEFFERSON DAVIS PARISH—Stanolind's Calcasieu National 1, South Jennings prospect, 15-10s-3w, dr shale 8299 ft.

ST. BERNARD PARISH—John Cartwright's Nunes 1, e of New Orleans, 10-13s-12e, dr shale 3810 ft.

ST. MARY PARISH—Mike Hogg's Lawes Realty Co. 1, near Charenton, 30-13s-10e, dr shale 5739 ft.

ST. MARTIN PARISH—Texas Co.'s Lake Mongouloui 2, 14-10s-9e, sidetracking 7744 ft.

VERMILION PARISH—Continental's Hebert 1, Abbeville prospect, 20-12s-13e, coring shale 11,316 ft.

NORTH LOUISIANA

BIENVILLE PARISH—Bowles et al's Bank of Ringgold 1, ne ne 3-15n-9w, lcn. DeSoto O&G Co.'s Dunn & Olsen 1, n½ nw 15-16n-10w, spd. J. W. Leonard et al's Courtney 1, se ne 5-17n-7w, 9 in csg 2450 ft, elev 215 ft, top red beds 3600 ft, top anhydrite 4858 ft, coring 4872 ft. Rondeau et al's Locke 1, ne nw ne 9-15n-10w, rur. Walters et al's Davis 1, se sw 5-16n-9w, dk.

BOSSIER PARISH — Humphrey et al's Bulkley 1, 35-21n-13w, dr 785 ft. Bailey Drlg. Co.'s (formerly Bowman and Tidwell), Nattin 1, 15-22n-14w, sd 2650 ft. Producers O&G Co.'s Skannal 1, w½ sw 22-17n-12w, elev 164 ft, tested 3 fourbles sw 15 minutes, arr abn, td 5274 ft. United Gas Pub. Serv. Co.'s H. L. Skannal D-1, ne ne 22-17n-12w, tested sw 5315 ft, pb to 5182 ft, perf cas, completed 21 mil ft gas 4300 ft, tested sw, so, old td 5315 ft. Triangle Drlg. Co.'s Skannal E-1, c s½ 23-17n-12w, gas killed at 4388 ft, dr 4900 ft in lime and shale. United Gas Pub Serv. Co.'s Skannal E-1, 26-17n-12w, rur.

CADDO PARISH—Dalton Dev. Co.'s Noel 1, 4-21n-14w, sd 1065 ft, top Nacatosh 805 ft. Fallon Oil Co.'s Cupples 1, 24-16n-13w, 16 in cas 190 ft, dr 2780 ft. Gulf Oil Corp.'s Hatcher 1, 11-17n-15w, elev 269 ft, 16 in cas 150 ft, top chalk 1465 ft, dr 1850 ft. J. B. Hutchinson's Tr.'s Colquitt 1, ne nw 28-16n-13w, 10 in csg 40 ft, dr 600 ft. Prairie River Synd.'s (J. E. Smitherman et al) Hutchinson 1, sw nw 15-15n-12w, elev 152 ft, anhydrite 3985-4475 ft, tested dry, drill stem test 4702-4809 ft, sr to bottom, td 4809 ft. Shreveport Oil Corp.'s Muslow 1, 5-20n-15w, dr 4810 ft. Pyramid O&G Co.'s Wheeler A-1, w½ ne 16-18n-16w, tested est 11 mil ft dry gas through 5/8-in choke, set 1998 ft 5-in csg, tested est 7 to 8 mil ft heavy flow sw arr re-cement 5-in csg, td 5911 ft, top Travis Peak.

CATAHOULA PARISH—McDermott etal's La. Cent. Lbr Co.'s 1, 5-10n-5e, sd 2760 ft.

CALDWELL PARISH—Critchett & Wood's Fee 1, nw se ne 18-11n-3e, dr 590 ft.

CLAIBORNE PARISH—E. T. Oakes et al's Patton Est. 2, ne ne 1-20n-5w, elev 357 ft, coring 4505 ft red shale, strks sand. Sugar Creek Synd.'s Darrett 2, se sw 31-20n-5w, elev

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234 ft, dr 8234 ft, black shale and shells. Martin & Langford's White 1, se se 26-21n-8w, spd 12½ in csg 40 ft, woc.

DE SOTO PARISH—J. E. Carlson et al's Garland 1, se nw 7-14n-14w, top Nacatoch 1065 ft, dr 1590 ft chalk. Payne et al's Harris 1, 11-13n-14w, fsg 2200 ft, R. Kamon Rascoe Est. 1, se nw 14-13n-13w, mim.

FRANKLIN PARISH—S. C. Jensen's Bailey 1, se nw 12-11n-6e, dr 1457 ft.

JACKSON PARISH — Zeigen et al's La. Cent. Lbr. Co.'s 5, ne nw 13-14n-2w, owdd, 1770 ft.

LA SALLE PARISH—H. L. Hunt's La. Cent. Lbr. Co. 2, sw sw 26-10n-4e, rur.

MOREHOUSE PARISH—Henry E. Rondeau, Camp et al's Clarke 1, ne se 10-20n-7e, elev 90 ft, woc 1334 in csg 650 ft, dr 1995 ft.

NATCHITOCHES PARISH—C. D. Morrison et al's Moffet 1, se se 19-10n-10w, woc 220 ft. Union Pet. Co.'s De Blieux 2, 83-10n-7w, dr 2150 ft. I. J. Allen's Simpson 1, 12-7n-7w, dk.

RED RIVER PARISH—Conley et al's Long-Bell 1, ne ne 19-13n-9w, sd 3200 ft, install heavier rig.

RICHLAND PARISH—Gulf Oil Corp.'s R. R. Rhymes 15, nw se se 32-17n-6e, elev 77 ft, dr top anhydrite 2935 ft, dr 3520 ft.

SABINE PARISH—Massa & Aiken's Whitney Corp. 1, ne ne 19-10n-13w, claim se in 23 ft of sand in Fredericksburg, set 7-in csg 3100 ft, swabbing, td 3300 ft. A. H. Tarver's Baker 3, nw ne 36-8n-12w, elev 347 ft, 8¼ in csg 3560 ft, dr 5005 ft lime. Whitehurst et al's Whitney Corp. 1, 8-9n-13w, claim strong sg 4400 ft, top first anhydrite stringer 4603 ft, dr 4676 ft. Pearl Oil Corp.'s Cranford 6, 20-9n-13w, set 4¼ in csg after sdtr 6-in swabbing, td 3500 ft.

TENSAS PARISH—H. M. Jones' Chicago Mill and Lbr. Co. 1, ne ne 29-12n-10e, sd 880 ft. Clara Nook, Plant 1, se se 32-12n-10e, sd 650 ft.

UNION PARISH—Federal Pet. Co.'s Series B. U. No. 3014, 34-21n-3e, dr 5165 ft. E. V. Series No. 3013, dr 3310 ft.

WEBSTER PARISH—W. D. Ambrose et al's Crichton 1, se nw 36-18n-8w, 16-in csg 250 ft, 10-in csg 3030 ft, dr 3420 ft. J. P. Evans' T. H. Johnson 1, se nw sw 36-18n-9w, elev 239 ft, dr 4155 ft, red beds. Ohio Oil Co.'s R. L. Holloway 6, ne sw 23-21n-10w, elev 210 ft, cemtd 7-in csg 8483 ft, drilling plug to core ahead, td 8495 ft (Permian). Red Hawk Oil Co.'s Baker 1, se nw 9-22n-9w, sd 200 ft. Skidmore et al's Barnette 1, nw sw 29-17n-9w, sd 1050 ft.

WEST CARROLL PARISH—Lohman et al's C. M. Neely 1, se se sw 19-20n-11e, 12-in csg 185 ft, sd drilling water well, td 700 ft shale.

MICHIGAN

ALLEGAN—Russell Sapp's Hudson 1, 2n-13w-29, lcn.

ALPENA—C. W. Teater's Nevins 1, 18n-32w-6e, dr 3700 ft. L. V. Hemp's Potter 1, ne nw sw, 36-32n-6e, lcn.

ARENAC—Tamblyn and Martindale's Buffalo Land 1, 19n-3e-7, dr 1500 ft. Aranac Oil Co.'s Griffin 1, 19n-5e-1, sd 110 ft. T. F. Caldwell, Inc.'s Mutch 1, 19n-4e-17, dr 560 ft.

BAY—H. L. McEvoy's Glander 1, 14n-3e-18, dr 2710 ft.

CHIPPEWA—F. D. Barton's Krettan 1, 41n-7e-17, fsg 880 ft.

CLINTON—St. Louis Pipe & Supply Co.'s Harris 1, 7n-2w-14, lcn. Petroleum Exploration Co.'s Cable 1, 5n-2w-12, fsg 2900 ft. H. E. Bell's Arthur 1, 6n-1w-29, dr 340 ft.

GLADWIN—Olympia Oil and Gas Co.'s Barnes 1, 20n-1w-22, dr 810 ft.

GRATIOT—Edward Swearer's Alexander 1, 12n-2w-8, lcn. McPherson Company's State Bank 1, 9n-1w-11, dr 610 ft. R. L. Stoddard's Soule 1, 9n-1w-9, dr 1710 ft. Oil Finder, Inc.'s Stahl 1, 9n-1w-28, dr 3190 ft.

IONIA— Terry Dale, Inc.'s Tew 1, 6n-7w-12, sd 4100 ft. James H. Barton's Mosser 1, 6n-5w-19, rig.

ISABELLA—Pure Oil Co.'s Embry 1, nw nw sw, 15n-6w-34, rig. Robbins and Hance's Myers 1, nw se nw, 14n-4w-24, mim.

JACKSON—Morris Oil Co.'s Peters 1, 2s-2e-23, rig.

KENT — Michigan Oil Exploration Co.'s Croff 1, 7n-9w-35, dr 4286 ft.

LAPEER—Kinnekenik Land Co.'s Neer 1, 6n-9e-29, dr 800 ft. Smith Petroleum Co.'s Vaskowitz 1, sw sw se 9n-9e-10, mim.

LENAWEE — St. Louis Pipe and Supply Co.'s Dibble 1, sw nw sw, 5s-3e-16, lcn.

LIVINGSTON—Louis Meyer, Tr.'s, Cassidy 1, 4n-3e-5, rig.

MACKINAC—Charles Van Kuren's Hiawaha Club 1, 44n-9w-17, dr 167 ft.

MACOMB—H. H. Brown's Stepnitz 1, 2n-13e-Claim 546, dr 700 ft.

MANISTEE — Jacob Bolema's Red Wing Dev. 1, 21n-16w-15, dr 3100 ft.

MASON—Sylvania Oil Co.'s Campbell 1, 17n-15w-10, csg 2742 ft. Dragoon Development Co.'s Young 1, 17n-15w-15, sd 3350 ft. Northern Development Co.'s Burke 1, 17n-15w-26, sd 2630 ft. Great Northern Oil Co.'s Cartier 1, 19n-15w-6, sd 1200 ft.

MECOSTA—F. V. McCollister's Joass 1, 15n-10w-8, sd 3300 ft. Taggart Brothers' Waters 1, 16n-8w-28, dr 1200 ft. W. J. Bernier's Fitzgerald 1, 13n-9w-9, Dundee 3474 ft, so&g 3684-87 ft, sd for 5-in csg. Daily Crude Oil Co.'s Hoffman 1, 16n-7w-9, dr 770 ft.

MISSAUKEE—M. J. Ingold's Donley 1, 22n-8w-31, dr 970 ft.

MONTCALM—K. B. Montigle's Loree 1, 9n-5w-18, testing Traverse oil 2725 ft, pumped 30 bbls day on three day test, packer leak.

MUSKEGON—Muskegon Development's Doll 1, 9n-14w-8, dr 1100 ft.

OGEMAW—Meredith Oil Co.'s Diebold 1, 21n-1e-17, dr 745 ft.

OSCEOLA—M. B. Keeler's Beall 1, 18n-9w-24, lcn.

TUSCOLA—Co-Op Oil Co.'s Forsyth 1, 10n-7e-36, dr 1789 ft.

MISSISSIPPI

CLAIBORNE COUNTY—Claiborne O&G Drlg. Co.'s Crawford 1, 6-13n-4e, elev 115 ft, dr 1150 ft. Claiborne County Dev. Co.'s Ruth Hayden 1, 56-11n-2e, lcn.

GRENADA COUNTY—H. T. Salter et al's Carpenter 1, 5-21n-7e, dk and mir.

JONES COUNTY—Snow-Black Pet. Co.'s Fox 2, 31-7n-12w, ran electrical tester, sd 4212 ft.

SIMPSON COUNTY—Goodwill O&G Co.'s Berry 1, 33-2n-4e, dk.

WILKINSON COUNTY—T. S. Stoneman et al's L. T. Ventress 1, 38-2n-3w, lcn.

YALOBOUSHA COUNTY—G. M. Langston et al's W. C. Bryant 1, ne sw 21-24n-6e, elev 276 ft, dk and mir.

MONTANA

DANIELS COUNTY—Whitetail Oil & Gas Co. nw ne nw 10-36n-50e, dr 2563 ft.

GLACIER COUNTY—Stanley Gray and L. P. Jackson, Dunbar 1, nw se nw 22-34n-7w, dr by lost bit 60 ft off bottom at 3742 ft.

FERGUS COUNTY—Judith Operating Co., Government 2, w nw ne 35-22n-17e, dr 2100 ft.

JUDITH BASIN COUNTY — Fletcher P. Hunt, Hobson 3, nw se ne 10-14n-15e, dr 981 ft.

PONDERA COUNTY—R. C. Tarrant, Wallenstein 1, cnw nw sw 9-28n-5w, dr 2511 ft after acid treatment. Gordon Campbell, Hughes 1, nw ne nw 12-30n-4w, dr 1796 ft. Klinch Petroleum Co., Holloran 1, nw nw nw 12-23n-6w, co 600 ft of cavings to bottom at 2200 ft.

PETROLEUM COUNTY—H. Clark Rowland et al's Kalispell 1, ne ne se 35-14n-25e, spd.

TOOLE COUNTY—Boyd Kyle, Wolsti 1, cse se 2-33n-1w, ru 6⅝ in csg at 2130 ft, to so water encountered at 2095 ft.

NEW MEXICO

LEA COUNTY—Argo Royalty Co.'s B. T. Lanehart 1, sw se ne 21-25s-37e, elev 3071 ft, dr 200 ft. C. & G. Oil Co.-The Texas Co.'s Ellen Weir 1, c ne ne 14-20s-37e, elev 3564 ft, top anhydrite 1348 ft, td 4075 ft, flows 15 bbls oil plus lots sul w. Barney Cockburn & Rowan-Nichols Oil Co.'s H. G. Mattern 1, c sw se 7-22s-37e, elev 3426 ft, used 2000 gals acid at 3727 ft, testing at 3746 ft. Conoco & California Co.'s E. M. Elliott 1-A-21, c se se 21-22s-37e, elev 3338 ft, dr 1200 ft. Culberson, Erwin & Stovall's J. S. Eaves 1, c sw nw 18-21s-33e, elev 3893 ft, dr 3460 ft. Emperor Oil Co.'s State 1, c sw sw 5-21s-35e, sd 415 ft. Gulf Oil Corp.'s L. M. Buffington 1, c nw sw 13-25s-37e, elev 3091 ft, coring 3130 ft; S. J. Carr 1, c nw sw 3-24s-37e, elev 3267 ft, dr 3870 ft; F. C. King 1, c sw nw 5-23s-37e, elev 3371 ft, swabbed dry at 3770 ft, sdo. Humble O&R Co.'s B. E. Boyd 1, c nw se 35-22s-37e, elev 3292 ft, dr 3300 ft; W. B. Farrell 1, c sw se 22-22s-37e, elev 3341 ft, pb fr sul w 3691-3705 ft, to 3684 ft, est 25 bbls oil and 25 bbls water, sd to pump. Jal Nat'l Gas Co.'s C. T. Bates-Humble 1, c nw sw 20-25s-37e, elev 3049 ft, cem 7-in cas 2616 ft. Landreth Prod. Corp.'s E. H. Grizzell 1, c se sw 5-27s-37e, elev 3437 ft, shot 230 qts nitro at 3661-3753 ft, td 3780 ft, est 100 bbls daily and will acidize. Harry W. Leonard et al's B. T. Lanehart 2, c se nw 21-25s-37e, elev 3067 ft, blew in at 2913 ft, gauged 285 bbls oil per hr for 3 hrs via choke on cas, set 2-in tubing at 2898 ft to test. Magnolia Scharbauer-Eidson 1, c nw se 29-16s-35e, elev 4014 ft, dr 2150 ft; E. A. Carson 2, c sw sw 28-21s-37e, rig. Ohio Oil Co.'s Anna Walden 1, c ne ne 21-22s-37e, elev 3364 ft, dr 610 ft. Oil Well Drlg. Co. et al's P. C. Klingsmith 1, c se se 20-19s-37e, elev 3655 ft, dr 3400 ft. Oil Well Drlg. Co.-The Texas Co.'s L. L. Clardy 1, c se se 13-16s-36e, cem cas 2370 ft. N. G. Penrose & Rowan-Nichols Oil Co.'s Will Cary-Humble 3, c se nw 22-22s-37e, elev 3364 ft, sd 1150 ft; Cary-Humble 4, c sw nw 22-22s-37e, elev 3365 ft, dr 3500 ft. Plains Prod. Co.'s J. A. F. Knight-Humble 1, c ne se 21-24s-37e, elev 3221 ft, dr salt 2005 ft; Knight-Humble 2, c ne sw 14-

TOUGH

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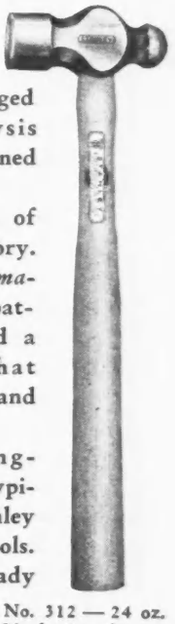

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24s-37e, mim; John Williams-Humble 1, c sw ne 34-24s-37e, elev 3191 ft, dr lime 2560 ft. Repollo Oil Co.'s J. M. Brownlee 1, ne ne sw 25-21s-36e, elev 3557 ft, dr 2730 ft; Frances Stuart 1, se nw se 10-25s-37e, elev 3114 ft, td 3353 ft, set 2-in tubing 3238 ft, completed flowed 35 bbls oil 1st hr and 25 bbls 2nd hr. Republic Production Co.'s R. S. Crosby 2, nw nw sw 28-25s-37e, rur. Samedan Oil Corp.'s S. B. Hughes 1, c ne sw 4-23s-37e, elev 3321 ft, dr 800 ft; Marshall 1, c sw nw 12-21s-36e, elev 3540 ft, td 3861 ft, swabbed 21 bbls fluid 8 hrs, 10 percent water, sd to pump. Skelly Oil Co.'s J. V. Baker 2, c nw nw 27-22s-37e, elev 3341 ft, pay 3550-96 ft, completed flowed 376 bbls oil initial 30/64-in choke after shot; Ellen Sims 1, c nw se 3-22s-37e, elev 3300 ft, flowed 702 bbls oil 22 hrs, td 3565 ft, testing; Ellen Sims 1-A, c sw se 3-22s-37e, dr 250 ft; F. S. Stuart 1, c ne nw 15-25s-37e, elev 3107 ft, shot 130 qts nitro 3364-3416 ft, and split cas. Sun Oil Co.'s B. T. Lanehart 1, c se se 20-25s-37e, elev 3042 ft, top anhydrite 971 ft, top salt 1145 ft, pb fr 2790 ft to 2422 ft, re-drilling, oil pay 2906-2935 ft, sd to run cas. W. H. Street et al's Wood 1, near c se ne 22-22s-37e, mim. The Texas Co.'s E. D. Fanning 1, c se ne 4-24s-37e, elev 3293 ft, pb fr sul w at 3701 ft to 3656 ft, co for shot.

OKLAHOMA

ATOKA COUNTY—Prairie Inv. Co.'s Cobb 1, sw ne nw 19-3s-11e, sd 710 ft. Phelps & Coats et al's Fidelity 1, se sw nw 23-1s-12e, set 8-in 690 ft, sd 750 ft.

BECKHAM COUNTY—Jo-Gail Drlg. Co.'s Gilliland 1, cne ne 3-8s-26w, dr 1530 ft.

CADDO COUNTY—Wasteka Oil Co.'s Griffin 1, sw se ne 27-6n-10w, dr 5955 ft.

CARTER COUNTY — Carter et al's Leon Voorhees 1, cse sw 34-5s-2w, dr 7652 ft. John W. Hammond et al's Lile 1, sw se se 8-5s-1e, sd 553 ft. Texas Co.'s Cathey 1-B, se ne ne 6-5s-1w, dr 4224 ft.

COAL COUNTY—Shell's Hill 3, se se nw 30-3n-10e, td 4270 ft, 75,000 ft gas. Sinclair Prairie's Culver 1, ne ne sw 16-1n-8e, cor 3081-85 ft, no show. Mitchell's Quiett 1, ne nw sw 35-1n-8e, sd 1900 ft. Carter and Magnolia's James 1, sw nw sw 35-1s-8e, cor 3490 ft, no show. Continental's King 1, ne sw ne 26-1n-8e, dr 2503 ft. Continental's Kirby 1, sw se sw 23-1n-8e, lcn. Carter's Warne 1, ne ne nw 31-3n-9e, digging cellar. Continental's Breedlove 1, nw sw sw 24-1n-8e, lcn.

COMANCHE COUNTY — William Davis' Aetna Life 1, se ne ne 22-2n-15w, sd 160 ft.

GARFIELD COUNTY—Stanolind-Amerada's Brunken 1, sw sw ne 32-23n-4w, sd 6521 ft.

GARVIN COUNTY—McElreath & Suggett's Lassater 1, se se sw 2-2n-1w, abd 5065 ft. Luttrell et al's Howell 1, nw se nw 34-1n-1e, dr 168 ft. Chas. E. Carter et al's Wood 1, nw sw se 5-4n-3e, testing. B. F. Lundy's G. C. Prince 1, ne ne se 32-1n-2w, rur.

GRADY COUNTY—Art Holt et al's Ramsey 1, ne se ne 31-5n-8w, rig. Graham et al's Castleberry 1, sw se nw 8-5n-7w, sd 580 ft. Ray Stevens' Mays 1, ne ne ne 1-3n-8w, rur.

HUGHES COUNTY—Phillips' Eberle 1, ne ne sw 12-5n-9e, bailing. Sivil et al's Montgomery 1, nw sw nw 7-9n-9e, sd 3498 ft. Blackwell O&G Co.'s Long 1, se ne nw 29-9n-9e, abd 2615 ft. Sinclair Prairie et al's Wilkey 1, sw sw sw 23-9n-8e, abd 3549 ft. T. P. McAdams & Barnes' Koch 1, sw ne ne 1-9n-10e, recementing. Burk-Greis' Dunson 1-A, se nw nw 3-9n-8e, lcn.

JACKSON COUNTY—Burnham's Oliver 1, nw nw se 26-1n-20w, dr 2245 ft. Ben Russell's Daniel 1, nw ne se 13-3n-20w, abd 1482 ft. Jackman's Fee 1, sw sw sw 27-1s-24w, dr by 2130 ft. Delaney's Mock 1, cne sw 32-1n-20w, sd 2890 ft.

JEFFERSON COUNTY — Red River Oil Co.'s Trout 1, se ne ne 6-8s-7w, fsg 2212 ft.

JOHNSTON COUNTY — Shell's Illinois Bankers 1, nw se ne 10-2s-7e, dr 1818 ft. Patton et al's McCrummens 1, sw sw ne 16-1s-6e, dr 260 ft.

KAY COUNTY—Allen and Texas Co.'s Fulton 1, se se se 18-27n-4e, sd 1715 ft. Denver P&R Co.'s School 1, se nw ne 13-26n-1w, sd 720 ft. Robert Wilson et al's Dickerson 1, ne ne sw 20-29n-1w, ru.

KIOWA COUNTY—Beeler & Klein's Parrish 1, se se nw 3-6n-15w, sd 290 ft. Westbrook & Likeing's Aetna Life 1, ne se se 10-5n-16w, td 610 ft, fsg. Travis & Scott's Doyle 1, ne se sw 21-5n-17w, dr 440 ft.

LEFLORE COUNTY—McGraw et al's Tidwell 1, cnw se 17-3n-22e, pulling 10-in csg, td 1890 ft.

LINCOLN COUNTY—Amerada et al's Zimmerman 1, sw sw ne 10-12n-5e, testing. Mid-Continent's Hillman 1, sw se ne 29-13n-6e, sd 4447 ft. Skelly's Sporn 1, nw ne sw 21-17n-3e, dr 4028 ft. Kemp and Continental's Lobaus 1, nw sw nw 21-17n-5e, rig.

LOVE COUNTY—Sinclair Prairie's Stockton 1, se se sw 26-6s-2w, woc 5-in 8448 ft. Riddle et al's Johnson 1, csw se 20-8s-2w, dr 2102 ft. Amerada and Stanolind's Westheimer 1, sw se sw 27-6s-2e, woc.

MARSHALL COUNTY — Helmerich & Payne's Taliaferro 1, nw se sw 26-5s-5e, dr 3385 ft. Sherril & Rounds' Taylor 1, sw ne ne 30-7s-7e, abd 820 ft.

McINTOSH COUNTY—Dieckman's McIntosh 1, se se se 4-12n-17e, sd 1000 ft.

NOBLE COUNTY — Stanolind-Amerada's Gillham 1, ne se se 14-22n-1e, set 7-in csg 4669 ft, woc.

OKFUSKEE COUNTY — Oklahoma Oil Corp.'s King 1, se se ne 23-10n-8e, mir.

OKLAHOMA COUNTY — O'Shaughnessy, Inc.'s Berlowitz 1, se sw ne 9-12n-3w, cor 6722 ft.

OSAGE COUNTY—Gray & Tolson's 1, sw sw ne 33-25n-7e, sd 3052 ft. Stoner & Miller's 1, nw ne sw 18-22n-8e, dr 2684 ft. Norbla Oil Co.'s 1, ne ne ne 13-22n-6e, rig. Chavalier & Simon's 1, se se se 24-23n-9e, rum.

PAYNE COUNTY — Amerada-Stanolind's Pratt 1, se se se 29-19n-5e, td 3802 ft, flowed 102 bbls oil and 74 bbls water, comp.

PITTSBURG COUNTY — Oklahoma Dist. Oil Co.'s Beeler 1, ne ne sw 7-7n-14e, lost circ. 1817 ft.

SEMINOLE COUNTY—Tom Phillips and Kimraw Drlg. Co.'s Chemperney 1, se se nw 7-6n-7e, drlg cement. Arkansas Royalty Co.'s Kiker 1, se se ne 9-10n-7e, abd 4545 ft. Deaner & Tilley et al's Wilson 1, se sw sw 29-7n-6e, dr 4680 ft. Rudco O&G Co.'s Butner 1-A, ne ne sw 15-9n-8e, sd 1638 ft. Kennedy's Bowlegs 1, nw nw se 3-8n-7e, lcn. Kingwood Oil and Gillispie's Maracle 1, nw sw ne 13-9n-7e, dr 1660 ft.

STEPHENS COUNTY—Endicott et al's McFatridge 1, nw nw sw 11-3s-19w, fsg 1487 ft. Ed Parson's Olson 1, csw sw 21-2n-8w, rig. Texas Co.'s Bohanan 1, ne nw nw 15-3s-15w, mach. T. H. McCasland's Hildebrand 1, sw se ne 1-3s-7w, bldg der.

TEXAS COUNTY — Allison & Barnhill's Bingley 1, sw sw ne 30-2n-18ecm, rig.

TILLMAN COUNTY—Gulf's Wearmouth 1, se nw se 31-1s-18w, m 5127 ft. Johnson, Young & Mitchell's Donahoe 1, se nw nw 7-4s-17w, fsg 3050 ft. Gulf et al's McWilliams 1, nw sw sw 15-3s-17w, dr 5168 ft. Bernheim's Tate 1, ne ne nw 16-1s-19w, dr 2630 ft. Smith's Hammill 1-A, ne nw nw 6-5s-15w, dr 2425 ft. Eugene Skinner's Oliver 1, se se nw 22-1s-15w, dr 707 ft.

EAST TEXAS

HARRISON COUNTY—W. F. Bridwell et al's Platt 1, F. C. Baker sur, arr deepen 2413 ft. Hanover, Bergendoll et al's Buchanan 1, Wm. McIlvain sur, sdtr, td 4070 ft.

PANOLA COUNTY—Gulf's Pierce & Chesbro 1, J. H. Shahan sur, dr 1200 ft. A. C. Glassell et al's Frost Lbr. Co. 1, Mary L. Potts sur, rur. Danciger O&R Corp.'s Shuttleworth 1, lcn. Logansport P. L. Co.'s Rushing 1, Manning Smith sur, sd 2650 ft.

SHELBY COUNTY—Rubeling & Potter's O. H. Polley 1, Wm. Whisner sur, dr 3702 ft shale. Mulroy & Curtin's C. Hayden 1, D. F. T. Yordt sur, woc 200 ft. H. A. Stebbinger et al's Pickering Lbr. Co. 1, C. F. Henry sur, sd 5000 ft fossiliferous lime.

ANDERSON COUNTY—Gulf Oil Corp.'s M. J. Ross 1 (54.7-ac), Robt. Irwin sur, Camp Hill area, elev 487 ft, top Georgetown lime 5452 ft, dr 7290 ft. Tide Water-Seaboard Oil Corp.'s J. N. Edens 15 (988.6-ac), Samuel Snyder sur, Cayuga area, elev 313 ft, Pecan chalk 2245-2410 ft, Austin chalk 3161-3498 ft, top Woodbine series 3880 ft, top Georgetown lime 4619 ft, top Glen Rose 6040 ft, dr hard lime and shale 6640 ft.

BOWIE COUNTY—Fay T. Chew and Brassett's Byron Barkinson 1 (90-ac), J. W. Parkman sur, 2½ mi n of Leary, sp and sd. Ferguson and Hill's A. Y. Breckenridge 1, Nancy Dycas sur, 4 mi w Texarkana, sp and sd. Woodley & Bentley's J. D. Lumpkin 1 (245-ac), John McDermott sur, 1¼ mi sw Dalby Springs, elev 290 ft, Annona chalk 1665-2090 ft, dr 3575 ft.

COLLIN COUNTY—Port Bolivar Oil Co.'s O. G. Durning-Clarkston 1-A (140-ac), Wm. Creager sur, Pat. 1193, elev 722 ft, sd 4096 ft; A. Shirley 1 (50-ac), Gwynn Morrison sur, 1 mi e of Anna, dk.

DELTA COUNTY—Delta Oil Co., Inc.'s J. H. McKinney 1 (231-ac), L. Hampton sur, lcn.

FALLS COUNTY—J. Edward Mills et al's Sam Grucholski 1 (40-ac), Dennis Herold League, 5 mi sw Kosse, elev 521 ft, top Pecan chalk 2114 ft, Austin chalk 2765-2946 ft, dr 3505 ft.

FRANKLIN COUNTY—Atex Oil Co.'s R. L. Jaggers 1, J. Humphreys sur, 1½ mi nw Winfield, elev 398 ft, dr 1000 ft. Earl Bateman Drlg. Co.-Al Ravenger's E. L. Phillips 1 (38½-ac), Wm. Bridwell sur, elev 358 ft, top Georgetown lime 3510 ft, top Paluxy 4287 ft, tested sw at 4357-4361 ft, pb to 4343 ft, completed pumping 511 bbls 23.3 deg. gravity oil daily. Virginia Hudson et al's B. M. Patterson 1, E. Rice sur, 3 mi sw Hagansport, elev 411 ft, dk. Humble's A. P. King-Hughes 3 (1053.36-ac), O. James sur, elev 369 ft, cem 7-in 4140 ft, td 4202 ft; King-Hughes 4, elev 368 ft, dk; King-Hughes 5, elev 365 ft, cem 7-in cas 4134 ft, td 4145 ft; King-Hughes 8, lcn; P. J. Dawson 1 (80.45-ac), B. H. Apperson sur, elev 372 ft, Pecan chalk 1280-1371 ft, top Georgetown lime 3432 ft, Paluxy series topped at 4220 ft, pay at 4243-45 ft and 4284-85 ft, td 4330 ft, swabbed 60 bbls 22.3 deg. gravity oil 13 hrs, complete. Lucy Pet. Co. et al's W. N. Crawford 4 (25.23-ac), O. James sur, elev 371 ft, top Georgetown lime 3466 ft, td 4300 ft, testing. Magnolia-Humble's C. L. Owings 1 (160-ac), McKinney-Williams sur, elev 367 ft, top Georgetown lime 3408 ft, top Paluxy pay 4130-4300 ft, completed flowing 16½ bbls oil per hour via tubing. McAlester Fuel Co.'s A. M. Crawford 4 (25.23-ac), O. James sur, elev 366 ft, Pecan chalk 1598-1688 ft, top Red Beds 3090 ft, top Georgetown lime 3390 ft, top Paluxy 4135-4296 ft, dr in; Crawford 8, Pecan chalk 1590-1695 ft, top Georgetown lime 3405 ft, dr 4000 ft. Stroube & Stroube's B. Norman 1, MEP&P Ry. sur No. 344, lcn. Red Iron Drlg. Co.-Dean Bros. & Adkisson's Lavada Church 1 (1-ac), C. Payne sur, elev 372 ft, top Georgetown lime — ft, top Paluxy 4125-4143 ft, cem cas. RH&B Oil Co.'s E. L. Phillips 1-B (72.1-ac), Wm. Bridwell sur, Pecan chalk 1345-1400 ft, dr 3300 ft.

GRAYSON COUNTY — Olson Drlg. Co.-James H. Gardner et al's SW Life 1 (160-ac), J. C. Jamison sur, A-865, 3 mi n Pottsboro, elev 767 ft, top Sylvan shale 4870 ft, Viola lime 4901-5096 ft, td 5890 ft, pb to 4426 ft, re-drilling hole. Port Bolivar Co.'s Creed Taylor 1 (160-ac), J. Fitzhugh sur, 3 mi se Gunter, sd 4048 ft.

HENDERSON COUNTY — Atex Oil Co.-H. L. Parsons' Texas Pecan Nursery Co. 1 (204½-ac), J. M. Arnest sur, 5 mi sw Chandler, elev 374 ft, Pecan chalk 3025-3220 ft, top Austin chalk 4320 ft, dr shale 4980 ft.

HOPKINS COUNTY—D. S. Hager, W. P. Luse & Leon Russ' J. E. Worsham 1 (150-ac), A. O. Wetmore sur, 2½ mi s Sulphur Bluff, elev 440 ft, Pecan chalk 1187-1208 ft, top Woodbine 3040 ft, top Georgetown lime 3600 ft, Paluxy series 4465-4500 ft, pumped 367 bbls oil 11 hrs, completed; Worsham 2 (150-ac), (1100 ft sw producer), dr 2600 ft. G. C. Tisdale et al's M. Flippen 1 (255-ac), A. O. Wetmore sur, lcn. A. T. & J. C. Johnson's J. F. Irvin 1 (40-ac), D. Fuller sur, lcn. R. T. Sullins et al's H. W. Wilson 1 (8½-ac), A. O. Wetmore sur, lcn.

HOUSTON COUNTY—E. R. Mount-Branch

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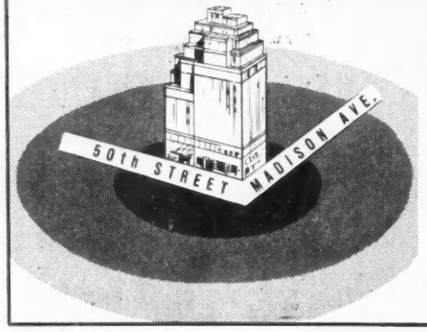

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et al's P. S. Griffiths 1, Frank Johnson sur, 3 mi sw Crockett, rur. Ellison, McBride, Haberle & Thornton's J. E. Bean 1 (40-ac), Eli Steadman sur, 1½ mi nw Grapeland, elev 482 ft, Pecan chalk 4660-4894 ft, Austin chalk 5610-5961 ft, top Woodbine series 6027 ft, td 6037 ft, completed est 70 mil ft gas and 120 bbls distillate daily. Walter L. Goldston et al's B. W. Burns-Humble 1 (50-ac), Juan de la Reviere sur, elev 255 ft, Pecan chalk 4280-4450 ft, top Austin chalk 5260 ft, drill stem test in Woodbine at 5748-5858 ft, showed only mud, logged water sand 5830-58 ft, dr 5860 ft.

HUNT COUNTY—Penn Oil Corp.-Elmer S. & Fox Wood's A. B. Manning 1 (57½-ac), Sally Owens sur, 5 mi ne Lone Oak, dk. Texola Land Corp.'s Gen'l American Life Ins. Co. 1 (203.8-ac), blk 104, J. Yeary sur, lcn.

KAUFMAN COUNTY—Colton, R. P. Lester et al's Barrow Bros. 1 (40-ac), J. D. Taylor sur, 8 mi ne Elmo, elev 528 ft, Austin chalk 2235-2681 ft, top Georgetown lime 4194 ft, top Paluxy series 4773 ft, dr 5250 ft.

LAMAR COUNTY—J. S. Abercrombie Co.-Harrison Oil Co.'s C. M. Terrell 1 (320-ac), Abner Hill sur, 4½ mi se Paris, dr 1150 ft. J. A. Forester et al's J. S. Woodward 1 (18¾-ac), J. W. Woodward sur, 1½ mi e by s of Minter, elev 402 ft, top Georgetown lime 2256 ft, Paluxy sand 3060-3144 ft, top anhydrite 3735 ft, base hard anhydrite 4075 ft, broken to 4105 ft, dr 4550 ft.

LIMESTONE COUNTY—C. F. Lytle et al's J. L. Thompson 1-T (141-ac), w side Mexia field, elev 459 ft, cem 7-in cas 6002 ft, td 6065 ft, tested salt water flow with gas, pb to 6059 ft, sdo.

RED RIVER COUNTY—R. H. Manning and Texfornia Co.'s Hocker-Hughes 1 (80-ac), MEP&P Ry. sur No. 642, 6 mi sw Lydia, elev 307 ft, Nacatoch sand 424-460 ft, sd 850 ft. B. B. Orr et al's C. Hocker-Kurth Lumber Co. 1 (635-ac), Elizabeth Smith sur, 11 mi ne Clarksville, sd in red sandy-shale 2400 ft.

ROBERTSON COUNTY—J. Edward Mills et al's Tony Congelosi 1 (75-ac), Geo. A. Nixon sur, 3½ mi sw Hearne, sp and sd.

RUSK COUNTY—Pure Oil Co.'s W. H. Faulkner 1 (60-ac), Wm. Elliott sur, 5 mi e Mount Enterprise, elev 563 ft, Pecan chalk 2650-2890 ft, Austin chalk 3286-3450 ft, top Georgetown lime 3446 ft, stringer anhydrite 5320-25 ft, top massive anhydrite 5945 ft, tested sw at 6177-6298 ft, top Travis Peak red beds 7323 ft, dr red beds 7751 ft.

SMITH COUNTY — Carolyn & Hastings' Bennett 1 (80-ac), Robt. Walters sur, 3 mi ne Winona, sp and sd.

WEST TEXAS

ANDREWS COUNTY — Fuhrman Pet. Corp.'s W. T. Ford 4 (440-ac), sec sec 16, blk A-43, PSL sur, top anhydrite 1655 ft, dr 1710. Grisham-Hunter Corp.'s Ratliff-Bedford 1, c nw¼ sec 24, blk 73, PSL sur, ur 10-in cas, td 982 ft. Humble's J. S. Means 8, c se ne sec 19, blk A-35, PSL sur, elev 3141 ft, top anhydrite 1870 ft, top salt 1905 ft, top brown lime 3910 ft, top white lime 4150 ft, lime pay 4504-4525 ft, used acid, completed flowing 703 bbls initial on gas lift; J. S. Means 9, near c se ne sec 22, blk A-35, PSL sur, elev 3149 ft, top anhydrite 1951 ft, top salt 2010 ft, dr 4130 ft. J. W. McMillan et al's J. E. Parker-Shell 1, Jas. Hobelis sur, blk 111, lcn.

BORDEN COUNTY—John I. Moore et al's Clayton-Johnston-Conoco 1, se¼ sec 20, blk 32, T&P Ry. sur, T-4-N, sp.

BREWSTER COUNTY—Floyd C. Dodson et al's Texas American Synd. 1-A, c ne ne sec 66, blk 10, GH&SA Ry. sur, deep test, elev 4228 ft, trace gas 2100 ft, top Deleware 2297 ft, dr 2565 ft. Tony Hess et al's Mrs. M. Decie 1, sec 7, blk 1, Georgetown RR. Co. sur, lcn.

COCHRAN COUNTY—Honolulu Oil Corp.-Cascade Pet. Co.'s Duggan Bros. 1, c labor 13, league 55, Oldham County School Land sur, rust, td 2297 ft.

CONCHO COUNTY—John W. Westbrook et al's C. C. Ledbetter 1, sec 2, blk 65, H&TC Ry. sur A-1673, elev 2000 ft, top Ellenberger lime 2611 ft, dr 3120 ft.

CRANE COUNTY—American Liberty Oil Co. et al's J. B. Tubb-Humble 2, c ne sw sec 11, blk B-27, PSL sur, sp. Big Basin Pet. Co.'s Jax Cowden 1, nec nw ne sec 77, blk X, elev 2456 ft, top salt 548 ft, sd 2985 ft. Steve Currie et al's TP Land Trust 1, swc se¼ sec 33, blk 44, T&P Ry. sur, T-3-S, show oil 3380 ft, dr 3445 ft. A. R. Eppenauer and A. H. Livingston's Livingston 1, sec 13, blk 6, H&TC Ry. sur, lcn for deep test. Gulf Oil Corp.'s M. B. McKnight 2, c ne¼ sec 9, blk B-21, PSL sur, top anhydrite 416 ft, top salt 585 ft, crooked hole, td 2200 ft; W. N. Waddell et al 2, c ne sw sec 18, blk B-21, PSL sur, elev 2620 ft, top sand 1620 ft, dr 4985 ft. Gulf and T. B. Cranfill's J. B. Tubb 2, nec sec 12, blk B-27, PSL sur, top anhydrite 455 ft, top salt 500 ft, cem 7-in cas 4220 ft, dr 4230 ft. Humble's J. B. Tubb 3, swc sec 10, blk B-27, PSL sur, dr 2120 ft. Loffland Bros. et al's J. B. Tubb-Gulf 2, sec n½ sec 9, blk B-27, PSL sur, top anhydrite 325 ft, top salt 465 ft, dr 3030 ft. J. E. Lucas et al's R. S. Pershing-The Texas Co. 1, sec 1, blk 31, H&TC Ry. sur, lcn abd. John I. Moore et al's T. C. Barnsley 1, c sw¼ sec 43, blk 32, PSL sur, elev 2472 ft, top anhydrite 500 ft, top salt 680 ft, top brown lime 2505 ft, top sul w in big lime 4555 ft, dr hfw 5360 ft. L. R. Stroud et al's J. Mosley 1, sec 4, blk 31, H&TC Ry. sur, elev 2373 ft, top anhydrite 525 ft, top salt 820 ft, sul w 2134-41 ft, dr 2150 ft. Tide Water's W. P. Edwards 1, swc nw¼ sec 2, blk B-23, PSL sur, elev 2775 ft, lime pay 3574-80 ft, td 3590 ft, used 3000 gals acid and flowed 4001 bbls potential.

CROCKETT COUNTY—John I. Moore et al's A. C. Hoover 1, sec sec 4, blk "FF", B&B sur, sd 1255 ft.

JEFF DAVIS COUNTY — C. M. "Dad" Joiner et al's Jones-Coffield 1, ne¼ sec 8, blk 3, H&TC Ry. sur, sdo in anhydrite 5000 ft.

DAWSON COUNTY—Harry Adams, Fred Turner and Ray Albaugh's John Robinson 1, c nw¼ sec 46, blk M, EL&RR sur, elev 3085 ft, top salt 1970 ft, top lime 4580 ft, sd 4929 ft.

ECTOR COUNTY — Broderick & Calvert, Inc.'s H. C. Foster 1, nec n½ se¼ sec 13, blk 43, T&P Ry. sur, T-2-S, dr 4050 ft. Amerada's H. E. Cummins 1, swc nw¼ sec 34, blk 45, T-1-N, dr 900 ft. Conoco's W. P. Edwards 1, sw sw sw sec 32, blk 44, T-3-S, Waddell area, lcn. W. H. Dunning, Jr., et al's H. E. Cummins 1-B, sec ne¼ sec 33, blk 45, T&P Ry. sur, T-1-N, base salt 2630 ft, top Yates 2725 ft, dr 2950 ft. Empire O&R Co.'s H. E. Cummins 1-B, nwc 160-ac lse, sec 34, blk 45, T&P Ry. sur, T-1-N, rust, td 1370 ft; Cummins 1-C, nec se¼ sec 22, blk 45, T-1-N, mim. Grisham-Hunter Corp.'s R. B. Cowden 1, c nw sw sec 10, blk 45, T&P Ry. sur, T-2-N, elev 3302 ft, top anhydrite 1465 ft, top salt 1491 ft, top Yates 2775 ft, top lime 3775 ft, dr 4030 ft; R. B. Cowden 2, c se¼ sec 8, blk 45, T-2-N, elev 3308 ft, top anhydrite 1470 ft, top salt 1520 ft, top Yates sand 2784 ft, dr 3800 ft. Phillips Pet. Co.-Pure Oil Co.'s Clyde Cowden 6, ne cor sec 23, blk 44, T-1-S, T&P Ry. sur, cem sur cas. Sinclair Prairie's J. L. Johnson 1-A, nec nw¼ sec 42, blk 42, T&P Ry. sur, T-1-S, dr 1400 ft. R. L. York-O. C. Harper et al's R. L. York et al's 1, c ne ne sec 10, blk 44, T&P Ry. sur, T-3-S, rust; Slator 1, c nw nw sec 26, blk 45, T-1-S, lcn; J. E. Witcher 1, c nw nw sec 19, blk 42, T&P Ry. sur, T-2-S, rur.

EL PASO COUNTY—Tri-State Oil Co.'s Chas. & L. M. Kinkel 1, nec sec 237, S. F. No. 7232, ur 5 3/16-in cas, td 2377 ft.

FISHER COUNTY — Forest Development Co.'s A. M. Dry 1, near c sw se sec 108, blk 2, H&TC Ry. sur, elev 2087 ft, ur, td 3912 ft. John McKeon, Inc. and Ellis & Eubanks' C. C. Wourland 1, nwc sw nw sec 15, blk 21, T&P Ry. sur, elev 2126 ft, dr 2850 ft.

GAINES COUNTY — Humble O&R Co.'s Wales Eubank 1, c sw sw sec 6, blk AX, PSL sur, elev 3365 ft, top anhydrite 1790 ft, top salt 1842 ft, top Yates sand 2880 ft, top brown lime 3950 ft, dr 5110 ft. Landreth Prod. Corp.'s W. H. Kirk 1, swc sw¼ sec 22, blk A-21, PSL sur, elev 3271 ft, top anhydrite 1950 ft, salt series 2047-2725 ft, top brown lime 4021 ft, top white lime 4315 ft, dd fr 4820 ft to sul w at 4870 ft, pb to 5858 ft for shot.

GARZA COUNTY—Grisham-Hunter Corp.-Brown Eagle Oil Co.'s J. R. Sullivan 1, nw½ sec 3, S. E. Harper sur, A-1118, td 2795 ft, used 2000 gals acid, testing. M. L. Richards et al's U. U. Post 1, nwc se¼ sec 1232, D. L. Phillips sur, A-938, top lime 2590 ft, dr 2955 ft.

GLASSCOCK COUNTY — California Co.-Honolulu Oil Corp.'s Steve Calverley 1, swc ne sw sec 25, blk 35, T&P Ry. sur, T-3-S, sp. Floyd C. Dodson et al's J. G. Carter 1, swc sw¼ sec 8, blk 33, T&P Ry. sur, T-3-S, dr 1010 ft. Shell Pet. Corp.'s L. S. McDowell 1, s½ sec 41, blk 34, T&P Ry. sur, T-2-S, lcn.

TOM GREEN COUNTY—Spinner Oil Co.'s A. and B. W. Reed 1, swc 137-ac lse, sub-div 39, Collyns Ranch, or Mayson & Perry sur, sd 2505 ft. F. E. Webb et al's D. B. Horne 1, near nec 1235-ac lse, sec 137, Washington Co. Ry. sur, lcn.

HOCKLEY COUNTY—The Texas Co.'s Bob Slaughter 1, league 38, Zavala C.S.L. sur, dr 286 ft.

HUDSPETH COUNTY—Costello Oil Corp.'s L. S. Costello 1, swc sw¼ sec 36, blk 70, T&P Ry. sur No. 1879, elev 4075 ft, mim. Haymon Krupp Oil & Land Co.'s S. J. Thaxton 1, near sec ne se sec 34, blk 74, T&P Ry. sur, Tsp. 6, dr lime 1150 ft.

JONES COUNTY—Chas. Gyr and S. L. Davis' L. E. Clyburn 1, nec 80-ac lse, sub-div 27, H. Millard sur, fsh 220 ft. Owens-Snebold Oil Corp.-Wittmer O&G Properties' L. F. Jones 1, near sec 259-ac lse, J. W. McKissick sur No. 204, dr 1800 ft. Owens-Snebold Oil Corp.'s S. Gorman 1, swc 160-ac lse, sec 5, blk 6, W. C. Walker sur, dr 1880 ft. Dobbs Oil Co. and W. K. Wood et al's W. J. McCreight 1, sec 99-ac lse, sec 14, Orphan Asylum Lands, dr

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2010 ft. H. O. Wooten et al's A. G. Poindexter 1 (236-ac), sec 9, ME&P Ry. sur, ur 8¼-in cas, td 2034 ft.

LOVING COUNTY—Mason Oil Co.'s Minnie Kyle 2, swc ne¼ sec 20, blk 55, T&P Ry. sur, Tsp 1, dr 1215 ft. Porter Rankin et al's W. D. Johnson 1, nw¼ sec 12, blk 57, T&P Ry. sur, Tsp. 1, elev 2904 ft, top Delaware lime 3119 ft, td 3251 ft, testing.

PECOS COUNTY—R. O. Clark et al's Mrs. E. C. Powell 1, west cor sec 96, blk 10, H&GN Ry. sur, dr 1625 ft. Dobbs Oil Co.'s J. M. Rooney 1, near ce ne ne sec 12, blk 125, T&St. L. Ry. sur, elev 3005 ft, top anhydrite 973 ft, top salt 1370 ft, dry and abd in sul w 2637-2639 ft. Lee Pet. Corp.-Bruce McKague's R. P. Hunyard-Humble 1, swc sec 2, blk 144, T. & St. L. Ry. sur, sd 1775 ft. Marion Prod. Co.'s W. Courtney 5, nwc sec 78, blk OW, T. M. Ry. sur, sd 500 ft. E. R. Minshall et al's J. B. Baker 1, near c sw nw sec 25, blk 146, T. & St. L. Ry. sur, sd 1595 ft. Stanley A. Thompson et al's Elsinore Cattle Co. 1, se¼ sec 53, blk D, GC&SF Ry. sur, Ordovician lime test, elev 3938 ft, fsh 2025 ft. Tex-Mex Pet Corp.'s McKee 1, sec 24, blk 9, H&GN Ry. sur, dk for deep test. Trans-Texas Oil Co.'s F. M. Gallagher 1, nec nw sec 9, blk 51, T&P Ry. sur, Tsp. 10, sd 480 ft; Popham Land & Cattle Co. 1, se¼ sec 235, blk 11, GH&SA Ry. sur, sd 1317 ft.

REEVES COUNTY—R. W. Clark, F. S. Miller and Frank Babcock's Radford Grocery Co. 1, near c of e line sec 39, blk 56, PSL sur, elev 3169 ft, sd 810 ft.

RUNNELS COUNTY—Golden Pet. Co.-John Castor's H. Giesecke 1, blk 150, sub-div 3, Jas. Hughes sur, dr 1735 ft.

SCHLEICHER COUNTY—Cardinal Oil Co.-Rowan-Nichols Oil Co.'s J. A. Whitten 1, c ne nw sec 35, blk L, TC Ry. sur, elev 2353 ft, water sand 4859-67 ft, dry and abd 5076 ft. Mangus Oil Corp.'s Judkins-Spencer (Pure) 1, c sw¼ sec 4, GC&SF Ry. sur, blk V-28, or Hooper-Wade sur, blk A, elev 2209 ft, top Ellenberger lime 5902 ft, tested sul w, pb fr 6527 ft to 5912 ft, testing.

SCURRY COUNTY—C. W. Guthrie et al's T. E. Sorrels 1, sec sec 101, blk 97, H&TC Ry. sur, sd 1240 ft.

TAYLOR COUNTY—H. Crissman et al's Abilene 1, se¼ sec 66, B. A. L. sur, cem 5½-in cas 3360 ft. Laurel Dunn and Herman McAlister's M. Bowles 1, sec sw¼ sec 28, B. A. L. sur, dr 580 ft. A. R. Forster et al's O. A. Prescher 1, near nec of 186-ac lse, sec 14, blk 86, J. R. Shipman sur, ur 1800 ft. Illinois Pet. Co.'s G. A. Bingham 1, nec 150-ac lse, sub-div 29, Guadalupe C. S. L. sur, League 121, dr 1915 ft.

TERRELL COUNTY—F. C. Bates and J. H. Felps' J. H. Felps 1, sec nw¼ sec 5, G. W. Turley sur, blk A-4, elev 2185 ft, sd 5635 ft.

TERRY COUNTY—J. A. Estes et al's F. Brownfield Graham 1, sec nw sw sec 23, blk T, D&W Ry. sur, machine. Uscan Oil Co.'s A. R. Brownfield 1, c n½ sec 54, blk K, PSL sur, lcn.

WINKLER COUNTY—Atlantic O. P. Co.-Wahlenmaier Pet. Corp.'s Fred Leck 2-A, nwc se sw sec 34, blk 74, PSL sur, dr 510 ft; Leck 3-A, swc s½ sw¼ sec 34, dr 1050 ft; Leck 2-C, swc s½ sw¼ sec 3, blk 26, top lime 2590 ft, dr 2800 ft. Bert Fields et al's E. W. Cowden-Pure 1, nwc se¼ sec 26, blk B-5, PSL sur, sp; J. B. Walton-Wentz 1, w½ sec 3, blk C-23, PSL sur, rig. Humble's J. B. Walton 3-C, swc se¼ sec 34, blk 74, PSL sur, elev 2877 ft, swabbed dry at 3090 ft, coring 3100 ft; Walton 4-C, swc nw¼ sec 34, dk. Fred Hyer et al's Cowden Cattle Co. 1, c nw¼ sec 8, blk A-56, PSL sur, elev 3082 ft, top anhydrite 1230 ft, top salt 1500 ft, base salt 2795 ft, dry and abd 5000 ft. Illinois Oil Co.'s McCutcheon-Conoco 1-B, nwc se¼ sec 25, blk B-3, PSL sur, testing at 3367 ft. C. M. "Dad" Joiner et al's Cowden-Evans 1, near c nw¼ sec 46, blk 73, PSL sur, elev 3203 ft, top anhydrite 1580 ft, top salt 1640 ft, top Yates sand 2930 ft, top lime 4060 ft, sd 5005 ft. K. D. Oil Co.'s Pink Mitchell 1, nwc s½ ne¼ sec 23, blk B-10, PSL sur, elev 2814 ft, top anhydrite 1010 ft, top salt 1070 ft, dr 1340 ft. Reed and Duffy's John Sealy 1, c ne nw sec 8, blk A, GMMB&A sur, machine. Sinclair Prairie's Fred Leck 1-A, sec sec 33, blk 74, PSL sur, cem cas 268 ft. Wahlenmaier Pet. Corp.'s J. B. Walton-Leck 1-D, swc n½ sw¼ sec 3, blk 26, PSL sur, fsh drill pipe 2562 ft.

YOAKUM COUNTY—E. R. Bahan and R. R. Rhodes' Mrs. Alice Henard 1, c sw¼ sec 367, blk D, John H. Gibson sur, elev 3691 ft, top anhydrite 2279 ft, salt series 2410 ft to 2965 ft, top Yates sand 3090 ft, base Red Beds 4470 ft, top brown lime 4490 ft, show oil in lime and 600 ft sul w at 5327-28 ft, sdo. Elliott Roosevelt and Lou G. Stogner's Roosevelt-Googins 1, sec ne¼ sec 215, blk D, John Gibson sur, elev 3712 ft, top anhydrite 2390 ft, top salt 2520 ft, top Yates 3135 ft, dr 4460 ft.

SOUTH TEXAS

ATASCOSA COUNTY—R. C. Lee, Trustee's U. A. Doumch 1, 152-ac tr, blk 10, J. T. Russell sur No. 1222, 3 mi n Poteet, set 7 in csg 3460 ft, top chalk 3503 ft, sd for repairs 3958 ft. Helvetia Oil Co.'s Susie Pratt 1, 176-ac tr, J. de la Garza sur No. 46, 1 mi nw Anchorage, sand and sandy shale 2249-2300 ft, set 7 in csg 2245 ft, swabbed abt 5 bpd 44 grav oil, coring 2922 ft, serp top, serp 2845 ft.

BASTROP COUNTY—Marts & Beaven's Parkford & Jenkins 1, center lot 24, Bastrop Town tr, td 3410 ft, ds stuck, fresh water broke in, recemented hole at btm, back in hole, sd for repairs.

BEE COUNTY—Geo. M. Church et al's C. A. Ray 1, Anna Burk sur, 2 mi e Beeville, sd 4500 ft. Lonnie Glasscock's J. B. Ablinger 1, 466 ft nwl, 330 ft nel of 109.65 ac tr John Ryan sur, 4 mi se Beeville, ru. Nichols & Quinn's J. R. Scott 1, blk 7, Howeth & Swiger sub, Uranga gr, sp and sd, wor. H. A. Pressey's R. T. Hicks 1, 1120-ac tr, Jose M. Uranga gr, ab 568, 4½ mi s of Normana, td 3568 ft, broken sand, shale and shells 3482-3568 ft, show dry gas, set and cemented csg on btm, perf 3482-85 ft, showed for gasser on prod. test through csg, ¾ in ch, wp 50 lbs, running tbg to dr out bridge near btm and comp. R. B. Swiger's C. A. Voss 1-A, 330 ft nl and el of sh 1, Voss Ranch subd, Samuel May sur, top Jackson 2891 ft, top Hockley 3270 ft, set csg on top of cap 3989-90 ft, Pettus sand 3991-97 ft. C. A. Voss 2-A, 660 ft s No. 1-A, 660 ft e of Devonian disc, Samuel May sur, lcn.

BEXAR COUNTY—Algra Oil Co. No. 1, Edward G. Peters, sur 5 sec 4, Miguel Gotari sur, 13 mi se San Antonio, sd 302 ft. American Gas Co.'s Oliver No. 5, 400-ac tr, M. F. Rodriguez sur, Gas Ridge, td 3160 ft, csg stuck in hole, sd. Carter & Ingersoll's Louis Mann 1, 60-ac tr, John Christopher sur, 3 mi s Van Ormy, set 6⅝ in csg, dr ahead 1225 ft, will go to Austin chalk. Joe Deupree's R. S. Coffey 2, F. Rodriguez sur, sd 1000 ft. Delaware Dev. Co.'s E. H. Fredrick 2, 1000 ft nwl of 380.4 ac tr, Rodriguez sur, ru prep sp. F. M. Shaver's A. W. Bitter 2, Jose Baerrera sur No. 48, 2 mi nw Von Ormy, top chalk 1171 ft, td 1324 ft, pb to 521 ft, testing on pump. Dr. L. Skaggs' P. A. Chapman, Jr. 1, 125-ac tr, A. J. Leslie sur, No. 99, 10 mi sw S. A., td 1017 ft, set csg 6⅝ in at 997 ft, prep dr plugs. Fred Thorman's A. L. Salm 1, 330-ac tr, Peter N. Hays sur No. 3, dr 1900 ft. R. P. Whitfield's Col. John Sweeny 1, Ch & Sa RR, sur, 11 mi sw San Antonio, td 804 ft, sand and sandy shale 784-804 ft, 6⅝ in csg at 800 ft, D&A 806 ft. Woodward & Hardie's R. W. Devilbiss 1, John Devilbiss sur, 1 mi s Thelma, sd 2280 ft, set csg abt 2800 ft, ds stuck, trying to loosen.

BROOKS COUNTY—The California Co.'s E. Garcia 1, tr No. 3, Las Mestinas de Gonzalina gr, Alta Mesa dist, td 8022 ft, pb and perf 3020-28½ ft, well made water with scum of oil, cemented perf, reperf 3024-27½ ft, testing.

BURLESON COUNTY—M. R. Exploration Co.'s J. M. Fountain 1, 963-ac tr in W. Raleigh sur, lcn. Red Bank Oil Co.'s Nellie Grann 1, 221-ac tr Eliza Santef sur, set 163 ft of 15 in csg, dr ahead 1905 ft, hard sand.

CALDWELL COUNTY—Barnet Pet. Corp.'s M. L. Strawn 1, 210-ac tr, Pablo Martinez sur, ¾ mi w of Lytton Springs townsite, dr 1645 ft in lime. H. B. Starkey's (J. J. Elam et al's) Francis-Brown-Cochran 1, W. F. Young sur, 5 mi e Luling, sand with show of oil and gas 1742-47 ft, set 5 3/16 csg on packer, completing when bailer blown out of hole, pullng cas to dd, lost 4 joints cas in hole, now fsh. Lincoln Pet. Corp.'s T. H. Brown 1, 70-ac tr, Dillard Cooper sur, td 2215 ft, pumped 20 bbls day, 5 3/16 in cas 1871 ft, prep acidize. Wheelock & Collins' Alexander 1, se ½ of 158- ac tr, Wm. S. Spillers sur, ¾ mi w of Branyon field, set 7 in cas 1840 ft, top ch 1904 ft, dr 2075 ft ch.

CALHOUN COUNTY—Hiawatha Oil Co.'s (Benedum & Trees) John Roemer 1, J. J. Ogsberrg sur, 9 mi s Port Lavaca, dr 3500 ft. Blanco Oil Co. & Al Buchanan's P. H. Welder D. L. Palmer, sur, 1 mi ne Heyser disc well, dr 3537 ft. Continental Oil Co.'s Austin 1, sec 12, blk "H", Pedro Garcia sur, 1 mi n of other heaving shale wells, Seadrift prospect, sec 11, ¾ in cas at 6598 ft, td 8722 ft in shale, ds stuck at 8521 ft, gas sand 8665-69 ft, sand 8700-20 ft show gas with slight oil odor, set cas to btm, will test sands 8714-22 ft, prep dr ahead with 6⅛ in cas. Humble O&R Co. & Plymouth Co.'s E. H. Welder 2, ¾ mi sw Heyser disc well, Jose Maria Rios sur, dst 5454-75 ft, rec 35 lbs pres, 90 ft mud, comp 100 bbls day ¼ in ch, too high oil-gas ratio, pulled tubg and reworked, dr ahead 6050 ft, pb to 5469 ft, setting 5 in liner; P. H. Welder B-1, 3000 ft nw disc, Agaton Cisneros sur, dr 1628 ft, boulders.

DUVAL COUNTY—Cole Pet. Co., W. R. Peters 1, 330 ft nl and wl of sur 795, ½ mi e of n end of Lopez field, lcn. Conservative Oil Co.'s DCRC 2, sur 51, blk 12, sand 1549-53 ft, set cas 1543 ft, no dst, show sw at 1533 ft, pb and will perf at 1519 ft. Frank J. Gravis' Gravis et al 2, 900 ft swl, 3050 ft sel of sur 250, lcn. Tom Graham's S. Sutherland 1, 170-ac tr, sur 188, 14 mi s of Freer, sand 2342-47 ft, 5 min, dst rec 375 pounds gas, 5 ft mud cut with high gravity oil, sand 2459-65 ft, tested 200 lbs dry gas, coring 2489 ft. Frank J. Gravis' Schallert 1-A, sec 555, Palagana salt dome, oil show in sand 1310-55 ft, dr 2208 ft. Chas. T. Kleiner's T. E. Chernoskey, n 30-ac of se 60 ac sur 226, ¾ mi nw Westheimer & Daube No. 2, sand 2693-2708 ft, set 7 in cas 2707 ft, perf cas in Loma Novia sand with 20 shots, perf with 50 more shots, no shows, sd, woc. Pan American Prod. Co.'s J. F. Welder heirs 1-H, 160-ac lse in sur 103, one mi sw of Loma Vista, showed gas on dst of upper Loma Novia sand, dr to 3006 ft, pb to 2866 ft, set 7 in csg 2822 ft, bad cement job, recemented, wocs. Parr Oil Co.'s W. H. Sling 1, s½ of nw¼ sur 118, 3 lcn north of Seven Sisters prod, sand 2477-85 ft, 7 in cas 2469 ft, comp 12 bph ½ ch. Rogers & Rogers' C. & C. A. Cuellar 2, 100-ac tr, sur 117, D&A. Smith & Hamill's Juan Benavides 1, Juan Benavides lands, E. Mesquite gr, D&A 3571 ft; Juan Benavides 2, on common cor of blks 15, 16, 22 and 23, subd 3, El Mesquite gr, 3 mi e of Cole field, ru. Shell Pet. Corp.'s J. F. Welder heirs 1-B, 79.3 ac lse in sur 69, 1¼ mi n Loma Vista field, 3 attempts to dst in sandy shale 2863-74 ft, failed, td 3242 ft in shaley gray water sand, ran electric formation test. J. T. Stover's W. J. Hester 1, sur 47, ¼ mi w of Gov't Wells prod, sand 2251-60 ft, set 7 in cas, td 2267 ft, fsh for bailer. E. R. Thomas et al's Atlee Parr 3, 420 ft sl, 330 ft el of 12.59 ac tr sur 26, dr 380 ft.

EDWARDS COUNTY—M. R. Phillips, Turney 1, 320 ft wl, 4960 ft sl of sec 164, Wyatt sur, dr 150 ft, lime. Plateau O&G Co.'s Mrs. R. L. Hatch 1, 660 ft sl, 1980 ft wl of J. W. Jay sur, sec 66, HE&WT RR sur, blk d, mim.

FRIO COUNTY—Amerada Pet. Corp.'s Arthur Michael 2, A. Lynch sur No. 321, Pearsall, td 5650 ft, set 7 in cas 5280 ft, top chalk 5270 ft, shut in, no potential; C. A. Miller 1, 394.3-ac tr in B. Satello sur, No. 323, Pearsall, set 7 in cas 5431 ft, top Austin chalk 5421 ft, td 5435 ft, wait on ds; W. H. Smith 3, J. V. Mason sur No. 322, dr 5470 ft ch, 7 in cas 5266 ft, top ch 5255 ft. Termo Co. of Texas' D. D. Arp 1, 102-ac tr, S. Blain sur, 4000 ft w Pearsall field, td 5920 ft, top Austin chalk 5502 ft, show some oil, shot, hole heaved, co to btm, acidizing.

GOLIAD COUNTY—The California Co.'s Langrebe 1, 466 ft nl and el of 100-ac tr in John Hancock sur, 8 mi n Goliad, mim. Claude

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Morgan et al's Mrs. W. O. Maetze 1, G. Barrera sur, D&A 5660 ft, ran electric formation test. Zeni Oil Co.'s M. Lutenbacher 3, sw ¼ of blk 25, Goliad Town sur, 2 mi s Goliad, dst 4150 ft, slight gas flow, top Pettus 5365 ft, core recovered btm 6 inches showed sandy shale, attempted to blow out, set 7 in cas 5352 ft, cemented with 560 sacks, dr plugs, blew out again, killed, cored ahead to 5629 ft, running tubing.

GONZALES COUNTY—Tull et al's Boska 1, 61.2-ac tr, B. McClure sur, sd 2180 ft.

GUADALUPE COUNTY — Ira L. Armstrong's F. H. Fieke 1, 304-ac tr, B. & G. Fulcher sur No. 19, near Staples, sd 630 ft, sh. Clark & Weinert's W. O. K. Anderson 1-A, Green DeWitt sur No. 11, 6 mi s Kingsbury, 50 ft fr No. 1 Anderson, td 2508 ft, set and cemented 6⅝ in cas 1739 ft, plugging back. Eickenroht & Gallagher's O. H. Jahns 1, 840-ac tr, Green DeWitt sur, 3 mi sw South Darst Creek, corrected depth, td 3204 ft, td in Georgetown, set 6⅝ cas at 2700 ft, top ch 2920 ft, top Eagleford 3081 ft, top Buda 3122 ft, top Del Rio 3184 ft, top Georgetown 3200 ft (?) bailing. Long & Ross's Ed. Felix 1, 1½ mi s fr New Berlin, 75-ac, V. Duran sur, sp and set 8 in cas 20 ft, changing to rotary. Riddle Oil Co.'s E. Nolte et al, J. Sowell sur, 6 mi e Seguin, dr 1525 ft, sh.

HIDALGO COUNTY—J. T. Barlow et al's Chapa 1, tr 252, porc 39, n side Samfordyce field, td 3200 ft, pb to 2450 ft, sdtr at 2475 ft, cored sand 2735-56 ft, and 2951-55½ ft, set 5½ in cas to td of 2964 ft, prep gun perf. Gulf States Oil Co.'s John Engelman 3, lot 3, blk 70, Las Mestinas gr, td 6812 ft, killed, recemented, ran sw and distillate from sand 6688-96 ft, pb, gun perf 6686-91 ft, still flowing distillate and wash water, tp 1100 lbs, cp 1600 lbs. Maxwell-Mundy-Morris' Southland Dev. Co. (Hidalgo County Water Control & Impr. Dist.) 2, lot 1, blk 20, Alamo Land and Sugar Co. sur, Alamo gr, 4 mi s Alamo, td 731 ft, pb to 650 ft, perf 638-642 ft. McCollum Exploration Co.'s R. E. Harding 1, 850 ft w of old Quintana Engleman 1, in lot 11, blk 94, in Mestinas gr, Missouri-Texas Land & Irrigation Co. subd, mir. Union Sulphur Co.'s ARGL No. 7, tr No. 2309, blk 59, 4000 ft e Mercedes field, td 7608 ft, 5 in cas 7530 ft, recemented liner, dr out to 7588 ft, reperf and sd, woc; ARGL&I Co. 8, lot 2120, blk 87, N. Capisalle Disc, N. Mercedes field, td 7822 ft, 5 in cas 7722 ft, pb to 7500 ft, pb to 7218 ft, will sdtr, set 5 in cas at 7450 ft in sdtr hole, testing jet, showing 41 grav oil at 7470 ft; ARGL&I Co. 10, blk 50, tr 2418, N. Capisalle dist, dr 4150 ft, sh.

JACKSON COUNTY — Steinberger Pet. Corp.'s Drushell 1, lot 6, Gale sub, Hayes Ranch, N. Rodriguez sur, edge Edna gas field, td 5132 ft, lost slips, pushed slips to side cement there, sdtr, cored sat oil sand 5780-91 ft and 5826-36 ft, prep make dst in sdtr hole.

JIM HOGG COUNTY—Theo Hicks et al's Kohler 1, blk 9, sub Noriseitas gr, 3 mi nw Hebbronville, ru. J. H. Meek, Jr.'s Martinez 1-A, sur 623, dst 3010-17 ft, show 150 ft plo, 47 grav, 25 min, set 7 in cas 3009 ft, dr plugs 8-6-36.

JIM WELLS COUNTY—Camp Drlg. Co.'s Jane Schallert 1, 1134.83-ac tr sh 3-A Los Presenos de Abajo gr, 2½ mi w Bentonville field, ru and dr water well. Gist & Graddy's B. W. Owens 1, Poitevant sur, nw Bentonville field, sd 4390 ft. J. Bennett 1, lot 87, sec 76, Holdeman sub 2 mi w Premont field, td 350 ft, set sur cas and sd. La Jita Corp.'s Fred Erck 1, sec 15, 1 mi n of Bentonville disc well, drilling 5290 ft. Hayden et al's 1, ne¼ of sec 19, Richard King Farm lots, dr 3019 ft. Putnam et al's Canales Est. 1, center blk 32, Mosser subd, of Canales Est., lcn. Stanolind O&G Co.'s F. L. Blundell 2, sw¼ of sec 16, 160-ac tr, King Ranch lots, coring ahead 3381 ft, dst 3250-3325 ft, rec 175 lbs. pres, 3 min. Frame & Bowers 1, sec 14 King Ranch sub, one mi ne Bentonville disc, dst 5385-5394, failed, set cas 5405 ft, td 5425 ft, dst will seat at 5396 ft, top plug 5417 ft, showed 2640 ft sw, pb to 5405 ft, tested sw, completing in 4000 ft sand as gas well.

KARNES COUNTY—Hickman et al, R. L. Barnett 1, Alex Hunter sur, dr 2251 ft.

KERR COUNTY—Auld & Evans' I. R. Henner 1, sec 13, BS&F sur, 25 mi nw Kerrville, dr 3100 ft, lime.

KLEBERG COUNTY—Clark et al's Kivlin 2, Fernando Creek, blk 8, sec 39, KT&I subd, coring 2080 ft.

LA SALLE COUNTY—Kennedy & Johnston's Gilmer & Wildenthal 1, 140-ac tr, sur 283, 8 mi se Cotulla, dk blew down, sd. Roy Shipman's Mrs. T. A. Coleman 2, 330 ft sl, 2970 ft wl, 500-ac tr, Jaines sur, sec 514, skidding on. W. H. Vernor's M. G. Jeffries 1, sec 726, HE&WT Ry. sur, 10 mi se Artesia, dk blew down, rebldg, dropped until work begins.

LAVACA COUNTY—Goode & Mayton's M. Schaffer et al 1, 481-ac lse, W. R. Hensley sur, lcn dropped.

LIVE OAK COUNTY—Dirks Bros.' A. E. Nichols 1, S. Ryan sur, coring 1426 ft. Adolph Douvre's S. A. Jt. Stk. Lnd. Bk. 1, plat 27, Tips subd, Richard Everett sur, 2 mi w Three Rivers, top Gov't Wells 1490 ft, sw, top Mirando 1650 ft, sw, blew out, ran wild for two days, killed after pumping 200 sacks of baroid into hole, upper Cockfield 1792-1806 ft, upper portion carried 25 mcf gas volume, shale 1802-1808 ft, cored Pettus sand saturated with oil 1802-21 ft, drilled sand 1821-32 ft, show oil, Conroe sand 1977 ft, 2002 ft, all sw, hung 5 3/16 in cas at 1865 ft, cemented with 150 sacks, perf 1808-15 ft, show sw, recemented perf 1785-90 ft, perf 1792-93 ft, rec only water and light amount of gas, abnd. J. H. McRoberts et al's J. D. Mahoney 1, 142-ac tr, Thomas Henry sur, 3 mi w Three Rivers, dr 1780 ft, Sun Oil Co.'s J. G. James 1, 1258.3 ac tr Pat McGloin sur, one mi e Mileska, clearing lcn.

MAVERICK COUNTY — Rio Dev. Co.'s Winchester Kelso 1, 297-ac tr in sur 2, 3 mi ne fr Eagle Pass, dr 255 ft, sticky lignite. Thornton & Underwood's Thompson heirs 1, Uvalde County School Land sur No. 2, 1 mi n of Eagle Pass, mir.

McMULLEN COUNTY—John Camp's Byrne Est. 4, 600 ft s No. 2 and No. 3, set sur csg, woc. Comet Oil Co.'s H. L. Lark 1, of blk 110, Lark subd, E. W. B. Scrugham sur, coring 800 ft. R. J. Hill et al's J. Richardson Est. 1, of sur 158, S&M sur, td 2741 ft. Humble O&R Co.'s D. W. Rhodes 2, sw¼ sec 17, 1½ mi ne Rhodes field, td 3039 ft, sand 2481-94 ft, test sw and some gas, pb and set 5½ in cas 1780 ft, comp 2 mcf gasser. E. M. Jenkins & Floyd's Raymond Plosczyk 1, 330 ft nl and el of blk 1, James Garner sur, lcn. E. D. Mathis' Wm. Fahler 1, 2000 ft sl, 75 ft el of s 500 ac of Fahler 1009-ac tr, G. Pittuck sur, 5 mi w Calliham, lcn. Mill Bennett's LaChusa 1, of sur 52, ru. Shumway's Shiner Ranch 9, sec 51, Shumway sub, Shiner Ranch, 9 mi s Wetz, top Jackson 814 ft, dst 1597-1615 ft, rec 2 joints dr mud, D&A 2014 ft. Ike W. Taylor's H. L. Lark 1, lot 72, Lark subd, E. W. B. Scrugham sur, between Pacob & Calliham fields, dr ahead 600 ft, well blew out, sprayed gas, ran wild. Travelers Oil Co.'s Chas. T. Lark 2, 50-ac tr, E. W. B. Scrugham sur, blk 114, td 1032 ft, set cas, woc.

MEDINA COUNTY—N. C. Johnston's R. T. Taylor 2, 320 ac tr, Henry Castro sur 136, dr 380 ft, sh. Thomas & Rife's Amelia Zadich 1, S. O. Lubbock sur, No. 504¼ se cor county, reaming 2260 ft, sh.

NUECES COUNTY—Mills Bennett's J. K. Ordner 1, 120-ac tr, AB&H sur, No. 410, ab 991, ½ mi w Saxet field, td 5918 ft, pb to 4000 ft sand, set 7 in cas 4150 ft, perf 4096½-4101½ ft, dst rec frbls sw and little oil, recement perf 4078-82 ft, jet with gas, but failed flow, prep to perf 4083-92 ft show gas, reperf 4083-87 ft, testing. Gem Oil Co.'s J. T. Smith 1, in center of lot 22, blk 47, ab ¾ mi n of disc well. O. W. Killam's O. S. Crook 1, ne¼ sec 115, F. Z. Bishop subd, Driscoll Ranch 2 mi ne of Bishop, dr 3000 ft; Betty Ellich 2, 600 ft s No. 1 Ellich, td 3922 ft, sand 3881-3908 ft, set cas, ran electric formation test, cleaning show light o&g 1600 lbs wp, kill and reperf. G. M. Richardson et al's P. S. Carter 1, center of nw¼ of se¼ of sec 8, Laurels Farm tr, mim for 7000 ft test. Texon Drlg. Co.'s Mable Eliff 1, 3054 ac tr in A. Longria sur, 2½ mi sw of Agua Dulce field, coring 6300 ft.

REFUGIO COUNTY—Benedum & Trees' R. H. Welder 1, commence west corner Friedline pasture, thence n 53 degrees east 4443 ft to location in Juan Pabedano sur, ab 49, dr 3780 ft, sh. E. W. Price et al's R. H. Wood 1, 600-ac lse in Dona Anastacia Reojas sur, ½ mi n Woodsboro and 4 mi e Refugio field, sp. Tidewater Oil Co.'s E. G. Landgrof 1, 220-ac tr, J. Collyer sur, eastern portion of county, pits dug, moved in material and sd.

SAN PATRICIO COUNTY—Atlantic Oil Prod. Co.'s Maryland Trust Co. 1, blk 17, B-C sub, 1150 ft sw disc well, Aransas Pass field, td 5350 ft, twisted off ds, set whipstock at 4904 ft, sdtr, dr 5100 ft, sdtr hole. Hiawatha Oil Co.'s E. H. Welder 4, 990 ft s of nl, 350 ft w of el of sec 19, Welder Ranch subd, set sur cas, woc 504 ft. Conroe Drlg. Co.'s D. M. McGloin 1, sec 33, Pauls subd, of Coleman Fulton Pasture Lands, 2 mi e Odom, dr 3750 ft. L. A. Douglas & Empire O&R Co.'s Hulda Konze 1, sec 15, tr 2, 200-ac tr, Welder subd, Patrick Fitzsimmons sur, 3½ mi sw Sinton, set sur csg, sd. O. W. Killam's J. F. Green Est. 1, 782-ac tr, R. Roos sur, 1½ mi sw Taft field, dr 4050 ft. Joe Lundin & Rowan & Hope's Mrs. E. W. Welder 1, sec 80, Welder Ranch subd, 2½ mi sw St. Paul, td 5005 ft, sdtr, dr 5200 ft in sdtr hole. Plymouth Oil Co.'s E. H. Welder 2-D, sec 4, Welder ranch subd, 1 mi e Sinton field, sand 5533-41 ft, set 7⅝ in cas, pb slightly, dr ahead 5747 ft, hard sand and sh. Trinity Drillers' W. C. Mayfield 1, lot 11, Roos subd, 2 mi n of White Point gas field, sp.

STARR COUNTY—Sam Adam's 1, 1400 ft s of St. Hyway 4, 150 ft e of el of Military Reservation in sh 20-A, porc 80, Juris of Reynosa, sd 600 ft. J. F. Anderson's Yzaguirre 1, 139-ac tr, porc 79, dr 2520 ft. Jno. F. Anderson's Garcia 1, sh 196, in sh 199, porc 90, se of Barbocoas field, D&A 1108 ft. Porter Evans'

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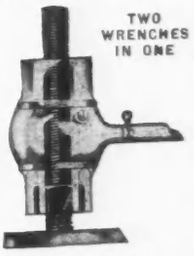

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H. F. Ferry 1, blk 3, Evans sub, Ferry lands porc 86, 7 mi se Rio Grande City, sp. F. Davenport & Slick Urshel's T. B. Slick Est. 1, el of sec 485, sp and dr water well. Killam & Staggs' S. D. Ricaby 3, porc 83, Camargo Juris, 3 mi se Rio Grande City field, gas sand 963-974 ft, shale 974-977 ft, gas sand 977-93 ft, td 1448 ft, set cas on btm, will gun perf 977-993 ft. A. G. McMath's M. Guerra & Son 1, blk 25, Conroe subd, porc 55, Juris of Mier, dr 320 ft. Moss & Bass's Frank Doyno 2, blk 3, tr 77-A, Camargo Juris, oil sand 1415-26 ft, set cas 1414 ft, woc.

VICTORIA COUNTY—Plymouth Oil Co.'s J. J. Welder 1, 466 ft nel, 1965 ft nwl of 11,-371.9-ac tr S. Belding sur, ab 141, 7 mi e of Nursery, lcn, 7000 ft test. Portilla Drlg. Co.'s P. H. Welder 1, 1018 ft sw of RR, 4125 ft sel of Felipe Dimmitt sur, s of Victoria, lcn.

WEBB COUNTY—Lu-Tex Oil Co.'s Lone Star Const. Co.'s 9, porc 12, 12 mi nw of Laredo, dr 2103 ft. Mid-Continent Pet. Corp. & Oklahoma Co. of Texas, Inc., E. T. Laubacher 1, 330 ft out of ne cor of nw¼ of sec 1394, sp.

WILLACY COUNTY — Ruiz & Morton's Santa Rosa, Inc. 1, 330 ft nl and el of lot 11, blk 31, Santa Rosa subd, sh 44, San Juan de Carricitos sur, dk and sd for rig. Shell Pet. Co.'s Yturria Land & Cattle No. 1, sh 65, San Juan de Carritos gr, La Sal Veja prospect, coring below 7420 ft.

WILLIAMSON COUNTY — Fritz Fuch's Jackson 1, Fred Murray 80-ac tr, H. Owen sur, D&A at 2310 ft. Fred Hughes' M. A. Bachmeyer 2, 1400 ft el, 1150 ft sl of C. C. Browning sur, dr 725 ft.

ZAVALLA COUNTY—Bay Oil Corp.'s Nat'l Bank of Commerce 1, sec 43, blk "A", AB&M sur, 16 mi se Batesville, td 6585 ft, top Buda lime 6580 ft, pb to 5250 ft, acidized, showed some oil, shoot, tested in pb hole, show little oil, top Edward lime 6860 ft, tested hard and dry, D&A 7082 ft. Leona Oil Corp.'s George West 1, C. Bustillo sur No. 1, top chalk 5760 ft, D&A 6020 ft.

TEXAS GULF COAST

AUSTIN COUNTY—W. H. Mitchell's Fenner 1, s of Kenney, J. Fitzgibbons sur, sd 1966 ft.

BRAZORIA COUNTY — Strake Petroleum Corp.'s Poole 1, Poole Ranch prospect, W. Eggers sur, sd 7506 ft. Gulf's Fairfield 1, Lochridge prospect, Wm. Robeson sur, comp 6267 ft, 1,000,000 cubic ft gas daily. Humble's Moller 1, Danbury dome, S. A. Towsey sur, dr sand 6156 ft.

BURLESON COUNTY—Red Bank Oil Co.'s Gram 1, Chriesman area, E. Sante sur, dr shale 2185 ft.

CHAMBERS COUNTY—Glenn H. McCarthy's Kilgore 1, Cotton Lake area, J. Townsend sur, woc 6290 ft.

GALVESTON COUNTY — Sun's Houston Farms Development Co. 1, Green's Lake area, D. Buckley sur, abn 4054 ft. Shell's Maco Stewart 1, Hitchcock prospect, J. Spillman sur, reaming 7019 ft.

HARDIN COUNTY—Republic Production Co.'s Brooks 1, Silsbee prospect, J. W. Brooks sur, blowing gas and oil, cratered at 6960 ft.

HARRIS COUNTY—Bunte Oil & Gas Co.'s Graves 1, Bammel prospect, C. Walters sur, spudded. Houston Oil Co.'s Lackner 1, Eureka area, H. Reinerman sur, running screen 7682 ft.

JEFFERSON COUNTY—Sun's Broussard 1, Labelle prospect, B. Blackmon sur, pb 8231 ft. Sun's Paggi 2, Nome area, J. W. Kirby sur, dr shale 2254 ft.

MATAGORDA COUNTY—Texas Gulf Prod. & Superior's Wadsworth 1, Sheppards Mott area, S. R. Fisher sur, dr shale 6658 ft. Marathon Oil Co.'s Kountz 1, Midfield prospect, I. & G. N. sur No. 11, abn 7000 ft. Pierce Estate Inc.'s Pierce Estate 1, ne part of county, Wm. Brown sur, coring sand 4468 ft. Sun Oil Co.'s Craig 1, Hawkinsville area, T. Williams sur, putting on a pump at 5150 ft.

MONTGOMERY COUNTY—W. O. Belnoski's Wood 1, Willis area. Wm. Weir sur, comp 10 bbls salt water and a small amount of gas 3739 ft. Blumenthal's Delta Land Co. 1, Willis area, J. Stokey sur, dr shale 3245 ft.

ORANGE COUNTY — Texas-Canadian Oil Co.'s Lutcher Moore 1, flank of Orange field, J. Dyson sur, lcn.

POLK COUNTY — Mayo & Dozier's D. Mayo 1, Segno prospect, J. G. Loving sur, ru.

TRINITY COUNTY—Boone Brothers' Adams 1, nw of Trinity, G. Sosa sur, dr shale 1679 ft.

WASHINGTON COUNTY — Carl Dyer's Thomas 1, n of Brenham field, H. Hensley sur, fsh 2238 ft. Sun's Lauter 1, Clay Creek field, N. Clay sur, dr shale 6959 ft.

WHARTON COUNTY — Cockburn Oil Corp.'s Fee 1, Magnet area, Smith & McKenzie sur, spudded. Continental's Weakley 1, Magnet area, J. Clements sur, ru. Pure's Borden 1, Blue Basin prospect, W. H. Leckie sur, dr shale 6859 ft; same operator's Shult 1, Blue Basin prospect, L. P. Ogden sur, dr sandy shale 7573 ft.

WYOMING

AIBANY COUNTY—James Lake Oil Co., George & Hunt 1, nw ne se 5-17n-75w, dr 1100 ft after changing over to rotary equipment at 1000 ft. Ohio Oil Co., Elisabeth Stiles 1, swc 12-15n-75w, dr 1518 ft.

BIG HORN COUNTY—J. M. Drumheller's Government 2, nw ne se 17-49n-91w, dr 1050 ft.

CARBON COUNTY — Medicine Bow Oil Co. Hintze-Government 1, cne se 18-22n-78w, dr 233 ft. Hal Blakeman Chapple 1, ne nw 33-21n-76w, dr 150 ft. General Petroleum Corporation, Union Pacific 1, sw sw sw 5-19n-83w, dr 3712 ft in the Niobrara shale.

CONVERSE COUNTY—E. B. Jones, State 1, sw sw sw 16-32n-69w, dr 2910 ft. The 10-in csg set at 2700 ft.

CAMPBELL COUNTY—C. J. Sherin et al Rodes 1, ne se sw 24-49n-74w, dr 255 ft.

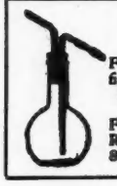
NIOBRARA COUNTY — Riggs Oil Co., Spaugh 2, A. A. nw ne 5-33n-65w, dr 236 ft. Lewis Gokel 1, sw ne 31-34n-62w, dr 876 ft.

PARK COUNTY—General Petroleum Corporation, Government 1, nw nw nw 33-47n-100w, mim.

SUBLETTE COUNTY—Wright & Lackey, Haddenham 1, nwc se sw 21-28n-113w, dr 310 ft.

WASHAKIE COUNTY — Wyoming Oil & Refining Co., Frison 1, nw sw nw 14-46n-97w, dr 2357 ft.

WESTON COUNTY—Conway Oil Co., Government 1, se se nw 7-41n-60w, dr 2531 ft.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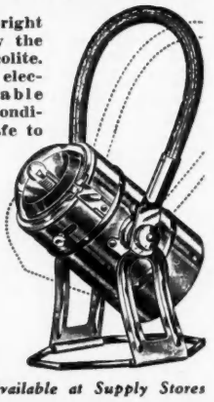
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This Week with the Industry's EQUIPMENT SUPPLIERS

Lucey Products Opens New Stores

Lucey Products Corporation, Tulsa, has opened two new field stores. A new service point has been added by a store at Rodessa, Louisiana, and a location for a new store at Hayes, Kansas, is being made.

Sperry-Sun Opens Office at Lafayette

Sperry-Sun Well Surveying Company, Philadelphia, on August 1 opened a new branch office in the Commercial Bank Building at LaFayette, La., which will serve customers in the Louisiana Gulf Coast area. The LaFayette office will carry in stock H-K and Syfo Clinographs and supplies, and will also give Surwel (Gyroscopic) service.

Campbell Joins Goodrich Petroleum Sales Department

E. T. Campbell, formerly of the associated lines division of the B. F. Goodrich Company, has been named assistant manager of the company's petroleum sales department with headquarters in Akron, it is announced by S. B. Robertson, vice president.

Campbell, who succeeds B. J. Brooks, recently appointed Goodrich district manager in Milwaukee, Wis., joined the company in 1921 and has served in various sales capacities in Cincinnati, Kansas City, Los Angeles and Chicago.

J. P. Woodlock is manager of the Goodrich petroleum sales department.

George B. Morris Returns from Europe

George B. Morris, president, Bradford Motor Works, Inc., Bradford, Pa., arrived in New York aboard the SS "Bremen" on July 31, having completed a business and pleasure trip to England, Germany, Poland, Austria and other European countries.

J. K. Carter Joins Bradford Motor Works

J. K. Carter, formerly connected with Trojan Cup Company, has joined the sales force of Bradford Motor Works, Inc., Bradford, Pa. He will represent the company in the Gulf Coast territory, with headquarters in Houston, Texas.

Republic Steel Gets Pipe Order

Republic Steel Corporation, Cleveland, has received a $250,000 pipe line order from Penn-York Natural Gas Company for 60 miles of 10¾-inch electric welded pipe. The pipe is to be used in a new natural gas line running from Coudersport, Pa., to Batavia and Dunkirk, New York.

The order involves 3326 tons and shipment is being made from Republic's tube mills at Youngstown, Ohio.

E. S. WALNE

Bettis Sales Company Announces Changes

Bettis Sales Company announces new management following the purchase of a substantial interest by E. S. Walne, who recently resigned as assistant to the general field superintendent of Mexican Eagle Oil Company in Tampico to become manager of the Houston, Texas, sales company. Walne has been in Mexico for the past 16 years, prior to which he worked for Humble Oil & Refining Company in the producing department. At the time of his resignation from that company he was chief clerk and head warehouseman at West Columbia. His first seven years in Mexico were spent as local purchasing agent at Tampico for Mexican Eagle Oil Company in addition to his other duties.

ALLEN P. BERRY

Bettis Sales Company also announces appointment of Allen P. Berry to its sales force. He resigns a connection of

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eight years with Sheldon Machinery Corporation in the Mid-Continent and Gulf Coast to take his new position, but continues to serve the Sheldon organization in handling the account. Berry spent a number of years in Mexico with J. F. Lucey Company, and two years in the Dutch East Indies in that company's employ before the World War. He returned in 1923 to Mexico as manager of Lucey Manufacturing Corporation of Mexico for three years, then went to New York to handle export work for Lucey Products Corporation. He came to the Mid-Continent for Sheldon Machinery Corporation in 1928. Berry first went to work in Mexico with Shell in 1912, after entering the industry in 1908, working for Oklahoma Natural Gas Corporation in Tulsa.

R. S. LEVERING

JOHN A. CHAPMAN

Promotions for Two Lucey Products Men

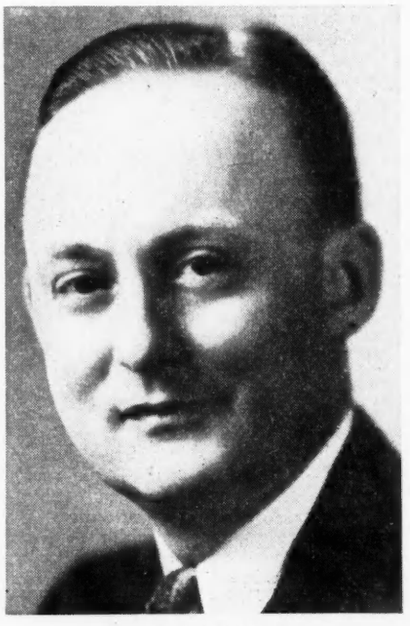
John A. Chapman, who has been sales manager for Lucey Products Corporation, Tulsa, for the past five years, has been promoted to the position of assistant general manager. R. S. Levering, who has been a vice president for 10 years, and who has been in charge of the Oklahoma territory, has been made vice president and sales manager.

Bovaird Supply Company Opens Office in Wichita

Bovaird Supply Company, which has maintained a store at Wichita Heights, Kansas, since the opening of the Valley Center pool in 1929, has established offices in the Union National Bank building in Wichita. C. A. Black, district manager for Kansas, will make his headquarters there. D. M. Bradley, sales representative and James R. Kennedy, office clerk, will also be in the Wichita office.

Fred Stone of Hydril Is Touring Europe

Fred Stone, chairman of Hydril Company, is enroute to Europe on a combined business and vacation trip. Accompanied by Mrs. Stone, he left Los Angeles by steamer late in July bound for the Panama Canal. He will make a number of stops in the oil fields of Colombia and Venezuela, later proceeding to London, England. After a short stay in London, Mr. and Mrs. Stone will tour the British Isles, Norway, Sweden and the Continent, returning to London early in October, where they will remain for several weeks.



W. D. TEUBNER

With the retirement of D. W. Boylan, vice president, W. D. Teubner of Tulsa, sales manager of the Eastern Division of General Paint Corporation, has assumed his duties. Boylan has returned to California to live. Teubner has been with General Paint Corporation since a factory was established in Tulsa.

Republic Supply Company officials receiving award of the B. F. Goodrich Company

Republic Supply Company Receives Goodrich Award

In recognition of its five years' service as distributor for the Goodrich line of mechanical rubber goods, Republic Supply Company of California, was recently presented with an attractive metal wall plaque by The B. F. Goodrich Company, Akron, Ohio.

The accompanying photograph shows L. L. Horchitz, Los Angeles manager of Goodrich Mechanical Sales, presenting plaque to President J. A. Crawford in the presence of other Republic Supply Company officials. Reading from left to right—L. L. Horchitz, J. W. Schmid, vice-president, J. A. Crawford, president, H. H. Glen, executive vice-president, T. P. Pike, sales manager and Walter L. Duhig, manager of field stores.

Squeaks from the Bull Wheel

Pale

"Why aren't you in school?"

"Because I washed my face yesterday and the teacher thought I was sick and sent me home."

Before the Fight

"Do you believe in long engagements?"

"Yes, I think young couples ought to be happy as long as possible."

Could Have Been Worse

"You certainly had tough luck, getting your hand blown off in the explosion."

"Yes, but think how much worse if it had been the other one. I had my week's wages in it."

Dangerous

"Why don't you take a day off and go fishing with me? Can't your boss get along without you?"

"Sure he can. But I can't take any chances on his finding it out."

Strategy

"I'm going to drive into the city with you this afternoon, James," said Mrs. Buynow. "I want to do a little shopping while the bargains are still on."

"I understand your strategic plans," responded her husband. "The drive is to be followed up with a counter attack."

Experienced

With an impressive gesture, the long-haired visitor faced the manager of the radio station.

"I should like to secure a place on your dramatic staff," he announced impressively.

"Are you an actor?" asked the radio manager.

"Yes."

"Had any experience acting without an audience?"

Tears came to the actor's eyes as he said, "Acting without audiences is why I am here, sir."

T. V. A.

"How do you like your new electric washer?"

"Not so good. Every Saturday night when I get into the thing and start to take a bath those paddle arrangements knock me off my feet."

And Prayed for Peace

A bishop was invited to dinner. During the meal he was astonished to hear the little daughter of the house state that a person must be brave these days to go to church.

"Why do you say that?" said the bishop.

"Oh," said the little child, "I heard papa telling mamma that last Sunday there was a big gun in the pulpit; the cannon was in the reading desk; the choir murdered the anthem; and the organist drowned the choir."

No Progress

Sally—Are you making any progress in your new job?

Jane—Heavens, no; the boss hasn't complimented me on anything but my work.

Moozie-Woozie

What is it has four feetzies, two pushzies, four pullzies and one swithzie?"

That's easy: a cow.

Wrong: a cowzie-wowzie.

Carrying Out the Order

I want a close shave.

You just had done, sir.

Why?

The manicurist's husband left the shop just as you patted her on the knee.

Forgot Ma

A Westerner entered a saloon with his wife and three-year-old boy. He ordered two straight whiskies.

"Hey, Pa," said the boy. "Ain't Ma drinking?"

Lost the Judge

A tiresome lawyer was delivering a speech in court. He had gone clear back to Julius Caesar, when he noticed that the court seemed inattentive. "I beg pardon, but is the court following me?"

"I have followed you thus far, but I refuse to follow you another step, for fear I couldn't find my way back alone," snapped the judge.

Smart Dog

The talk in the club was on sensible dogs. Brown said: "I have the best in the world. Soon after I got it the wife and I went out. On coming home I found the dog lying on the sofa, so I gave him a scolding. Next time I came in he was on the floor, but on finding the sofa was warm I gave him another scolding."

"I suppose that cured him," said Jones.

"Not exactly," said Brown. "You see the next time he was standing by the sofa, blowing on it to cool it."

Some People Are Like That

"Have you ever appeared as a witness before?"

"Yes, your honor."

"In what suit?"

"My blue serge."

He Had It

He had bought a very old car and felt he owned the road. When another driver, whom he had kept behind him for a mile, yelled, "Get your old iron out of the way!" he was furious.

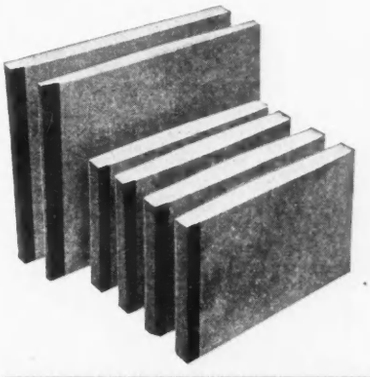
He stopped. "Look here!" he cried. "I demand an apology!"

The other looked pityingly at the dilapidated car. "You've got it!" he said.

Logic

How could you swindle people who trusted in you?

But, judge, people who don't trust you can't be swindled.



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Spang & Co. —
Spang, Chalfant & Co. —
Sperry-Sun Well Surveying Co. 96
Stanley Tools 97
Star Drilling Machine Co. —
Sun Oil Co. —

T

Templeton Kenly & Co. —
Texas Electric Steel Castings Co. —
Texas Iron Works —
Texas Rubber & Specialty Corp. —
Texas Steel Co. —
Thermoid Rubber Co. —
Thornhill-Craver Co. —
The Timken Roller Bearing Co. 15
Tips Engine Works —
Titusville Iron Works Co. —
Tnemec Co. —
Edgar Tobin Aerial Surveys 84
Tretolite Co. —
Trimont Manufacturing Co. —
Trinity Portland Cement Co. —
Twin Disc Clutch Co. —

U

Union Carbide & Carbon Corp. —
Union Wire Rope Co. Second Cover
United States Rubber Products, Inc. —
United States Steel Corp. 38-39
United Supply & Manufacturing Co. —

V

Volcano Burner Co. —

W

The Watson-Stillman Co. —
Waukesha Motor Co. —
Westinghouse Electric & Mfg. Co. —
The Wheland Co. —
Wickwire-Spencer Steel Co. 41
J. H. Williams & Co. —
W-K-M Co. —
Williamsport Wire Rope Co. —
Wilson-Snyder Manufacturing Co. 38-39
Wilson Manufacturing Co. —
Wilson Supply Co. 101
Worthington Pump & Machinery Corp. —

Y

Yale & Towne Manufacturing Co. —
Youngstown Sheet & Tube Co. —

MULTIPLE STAGE CEMENTING AT *Cayuga*

The CONDITIONS

● In a well at Cayuga, Texas: **1.** About 8,800 ft. of 7″ O. D. casing was to be run. **2.** 4,100 ft. of 8¾″ open hole. **3.** 9″ O. D. casing set at 4,700 ft. **4.** A high-pressure gas sand was located in upper portion of open hole. **5.** Heavy circulating fluid was required to hold down high-pressure gas. **6.** A thirsty formation in open hole took ordinary mud and might take cement slurry. **7.** A thick circulating mud was used to lessen loss into thirsty formation. **8.** Temperature of circulating mud at overflow while drilling was 142° F—highest on record; indicating highest temperature conditions in well ever to be encountered in a cementing job. **9.** Combination of thick, heavy drilling fluid caused a circulating pressure of 1,100 lbs. while drilling.

The PROBLEM

● The problem was to place cement behind the casing to protect any productive sand which might be located at the *bottom* of the well, and at the same time to protect the high-pressure gas sand in the *upper part* of the open hole. Because of the conditions it would be extremely difficult and impractical to place cement in a single stage to accomplish both objectives.

The SOLUTION

● A perfect solution to the problem was found in Multiple Stage Cementing . . . . The casing was equipped with ONE HOWCO Guide Shoe, TWO HOWCO Float Collars and ONE HOWCO Multiple Stage Device set at a depth of 6,648 ft.

The RESULT

● *A 100% successful job*—Circulation was readily established after landing casing. Two stages of cement, 350 sacks each, were landed in their respective places behind casing in one continuous operation. Total elapsed time: *1 hour and 3 minutes.* Pump pressure never exceeded 1,000 lbs. Cement plugs, float valves and guide readily drilled out with 2½″ upset tubing and 5⅞″ rock bit. Well drilled to below 9,000 ft. . . . no commercial production . . . then plugged back inside casing to point below high-pressure gas sand which was protected by the second stage of cement. Casing was then perforated at gas sand and well completed as large gas well, making considerable distillate. Still producing.

SERIOUS PROBLEM *Successfully* SOLVED

HALLIBURTON OIL WELL CEMENTING CO.
DUNCAN, OKLAHOMA • CALIFORNIA OFFICE, 810 S. SPRING ST., LOS ANGELES

On the Road to Mandalay . . .

Wells are being drilled deep under the IRRAWADDY RIVER with

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